BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO In the Matter of the Application of Duke Energy: Ohio, Inc., for an : Case No. 17-32-EL-AIR Increase in Electric Distribution Rates. In the Matter of the Application of Duke Energy: Ohio, Inc., for Tariff : Case No. 17-33-EL-ATA Approval. In the Matter of the Application of Duke Energy: Ohio, Inc., for Approval : Case No. 17-34-EL-AAM to Change Accounting : Methods. In the Matter of the Application of Duke Energy: Ohio, Inc., for Approval : Case No. 17-872-EL-RDR to Modify Rider PSR. In the Matter of the Application of Duke Energy: Ohio, Inc., for Approval : Case No. 17-873-EL-ATA to Amend Rider PSR. In the Matter of the Application of Duke Energy: Ohio, Inc., for Approval : Case No. 17-874-EL-AAM to Change Accounting Methods. In the Matter of the Application of Duke Energy: Ohio, Inc., for Authority : to Establish a Standard Service Offer Pursuant to : Section 4928.143, Revised : Case No. 17-1263-EL-SSO Code, in the Form of an Electric Security Plan, Accounting Modifications, : and Tariffs for Generation: Services.

: 1 In the Matter of the Application of Duke Energy: 2 Ohio, Inc., for Authority : to Amend its Certified : Case No. 17-1264-EL-ATA 3 Supplier Tariff, P.U.C.O. : No. 20. 4 In the Matter of the 5 Application of Duke Energy: Ohio, Inc., for Authority : Case No. 17-1265-EL-AAM to Defer Vegetation 6 Management Costs. : 7 In the Matter of the 8 Application of Duke Energy: Ohio, Inc., to Establish : Minimum Reliability : Case No. 16-1602-EL-ESS 9 : Performance Standards 10 Pursuant to Chapter : 4901:1-10, Ohio : 11 Administrative Code. 12 13 PROCEEDINGS 14 before Mr. Nicholas Walstra and Ms. Stacie Cathcart, 15 Attorney Examiners, at the Public Utilities 16 Commission of Ohio, 180 East Broad Street, Room 11-A, 17 Columbus, Ohio, called at 9:00 a.m. on Thursday, 18 July 19, 2018. 19 20 VOLUME IX 21 22 ARMSTRONG & OKEY, INC. 23 222 East Town Street, Second Floor Columbus, Ohio 43215-5201 24 (614) 224-9481 - (800) 223-9481 25

1 **APPEARANCES:** 2 Duke Energy Ohio, Inc. By Mr. Rocco O. D'Ascenzo 3 Deputy General Counsel, Ms. Jeanne W. Kingery Associate General Counsel, 4 and Ms. Elizabeth H. Watts 5 Associate General Counsel, 139 East Fourth Street ML 1303 Main Cincinnati, Ohio 45201 6 7 Duke Energy Business Services, LLC By Mr. Camal O. Robinson 8 550 South Tyron Street, 45th Floor Mail code: DEC45A 9 Charlotte, North Carolina 28202 10 Ice Miller, LLP By Mr. Christopher Miller 11 250 West Street, Suite 700 Columbus, Ohio 43215-7509 12 Ice Miller, LLP 13 By Ms. Kay Pashos and Mr. Michael S. Mizell 14 One American Square, Suite 2900 Indianapolis, Indiana 46282 15 On behalf of Duke Energy Ohio, Inc. 16 Bruce E. Weston, Ohio Consumers' Counsel 17 By Mr. William J. Michael, Mr. Christopher Healey, 18 and Mr. Zachary Woltz, Assistant Consumers' Counsel 19 65 East State Street, 7th Floor Columbus, Ohio 43215-4213 20 On behalf of the Residential Consumers of 21 Duke Energy Ohio, Inc. 22 23 24 25

```
1
     APPEARANCES:
 2
            Environmental Law & Policy Center
            By Ms. Madeline Fleisher
 3
            21 West Broad Street, 8th Floor
            Columbus, Ohio 43215
 4
            and
 5
            Environmental Law & Policy Center
 6
            By Mr. Jean-Luc Kreitner
            35 East Wacker Drive, Suite 1600
 7
            Chicago, Illinois 60601
 8
                 On behalf of the Environmental Law &
                 Policy Center.
 9
            Mike DeWine, Ohio Attorney General
10
            By Mr. William L. Wright,
            Section Chief
11
            Mr. Steven L. Beeler,
            Mr. Thomas G. Lindgren,
12
            and Mr. Robert Eubanks,
            Assistant Attorneys General
13
            Public Utilities Section
            180 East Broad Street, 6th Floor
14
            Columbus, Ohio 43215
15
                 On behalf of the Staff of the PUCO.
16
            IGS Energy
            By Mr. Joseph Oliker
17
            and Mr. Michael Nugent
            6100 Emerald Parkway
            Dublin, Ohio 43016
18
19
                 On behalf of IGS Energy.
20
            Ohio Environmental Council
            By Ms. Miranda Leppla
21
            1145 Chesapeake Avenue, Suite I
            Columbus, Ohio 43212
22
                 On behalf of the Ohio Environmental
23
                 Council and Environmental Defense Fund.
24
25
```

1415 1 **APPEARANCES:** 2 Vorys, Sater, Seymour & Pease, LLP By Mr. Michael J. Settineri 3 and Ms. Gretchen L. Petrucci 52 East Gay Street 4 P.O. Box 1008 Columbus, Ohio 43215 5 On behalf of Constellation NewEnergy, 6 Inc., and Exelon Generation Company, LLC. 7 The Law Office of Robert Dove By Mr. Robert Dove 8 P.O. Box 13442 Columbus, Ohio 43213 9 On behalf of the Natural Resources 10 Defense Council. 11 Sierra Club Environmental Law Program By Mr. Tony G. Mendoza 12 Staff Attorney 2101 Webster Street, 13th Floor Oakland, California 94612 13 14 On behalf of the Sierra Club. 15 Vorys, Sater, Seymour & Pease, LLP By Mr. Michael J. Settineri 16 Special Assistant Attorney General 52 East Gay Street 17 P.O. Box 1008 Columbus, Ohio 43215 18 On behalf of University of Cincinnati and 19 Miami University. 20 Ohio Partners for Affordable Energy By Ms. Colleen L. Mooney 21 P.O. Box 12451 Columbus, Ohio 43212 22 On behalf of Ohio Partners for 23 Affordable Energy. 24 25

```
1416
```

```
1
     APPEARANCES:
 2
            Boehm, Kurtz & Lowry
            By Mr. Michael L. Kurtz
 3
            and Ms. Jody Kyler Cohn
            36 East Seventh Street, Suite 1510
            Cincinnati, Ohio 45202
 4
 5
                  On behalf of the Ohio Energy Group.
 6
            Calfee, Halter & Griswold LLP
            By Mr. N. Trevor Alexander,
 7
            Mr. Mark T. Keaney
            and Mr. Steven D. Lesser,
 8
            1200 Huntington Center
            41 South High Street
 9
            Columbus, Ohio 43215
10
                 On behalf of the City of Cincinnati.
11
            Bricker & Eckler, LLP
            By Mr. Devin D. Parram
12
            100 South Third Street
            Columbus, Ohio 43215-4291
13
                 On behalf of the Ohio Hospital
14
                 Association.
15
            Bricker & Eckler, LLP
            By Ms. E. Nicki Hewell
16
            100 South Third Street
            Columbus, Ohio 43215-4291
17
                 On behalf of People Working
18
                 Cooperatively.
19
            Carpenter Lipps & Leland LLP
            By Ms. Kimberly W. Bojko
20
            and Mr. Brian W. Dressel
            280 North High Street, Suite 1300
21
            Columbus, Ohio 43215
                 On behalf of The Ohio Manufacturers'
2.2
                 Association Energy Group.
23
24
25
```

```
1417
```

```
1
     APPEARANCES: (Continued)
 2
            Carpenter Lipps & Leland LLP
            By Ms. Angela M. Paul Whitfield
 3
            280 North High Street, Suite 1300
            Columbus, Ohio 43215
 4
                 On behalf of The Kroger Company.
 5
            McNees, Wallace & Nurick LLC
 6
            By Mr. Frank P. Darr
            and Mr. Matthew R. Pritchard
 7
            21 East State Street, 17th Floor
            Columbus, Ohio 43215
 8
                 On behalf of Industrial Energy Users -
 9
                 Ohio.
            Whitt Sturtevant LLP
10
            By Mr. Mark A. Whitt
            and Ms. Rebekah J. Glover
11
            The KeyBank Building, Suite 1590
12
            88 East Broad Street
            Columbus, Ohio 43215
13
                On behalf of Retail Energy Supply
14
                Association and Direct Energy Business,
                LLC.
15
            Spilman, Thomas & Battle, PLLC
16
            By Ms. Carrie M. Harris
            110 Oakwood Drive, Suite 500
17
            Winston-Salem, North Carolina 27103
18
                 On behalf of Wal-Mart Stores East, LP,
                 and Sam's East, Inc.
19
20
21
22
23
24
25
```

Duke Energy Volume IX

г		
		1418
1	INDEX	
2		
3	WITNESSES	PAGE
4	Mark Higgins	
5	Direct Examination by Ms. Fleisher Cross-Examination by Mr. Oliker Cross-Examination by Mr. Mizell	1421 1423 1431
6	James F. Wilson	
7	Direct Examination by Mr. Michael Cross-Examination by Mr. Miller	1438 1440
8	Redirect Examination by Mr. Michael	1490
9	Barbara R. Alexander Direct Examination by Mr. Healey	1495
10	Cross-Examination by Ms. Watts	1495
11	James W. Schweitzer Direct Examination by Mr. Lindgren	1530
12	Cross-Examination by Mr. Oliker Cross-Examination by Mr. Healey	1530 1531 1532
13	CIOSS-EXAMINACIÓN DY MI. Nealey	TUUT
14		
	ELPC EXHIBITS IDENTIFIED	ADMITTED
15	3 - Direct Testimony of 1421	1437
16	Mark Higgins filed June 25, 2018	
17		
18	OCC EXHIBITS IDENTIFIED	ADMITTED
19	<pre>11 - Direct Testimony of James F. 1438 Wilson filed June 25, 2018</pre>	1492
20	(Public Version)	
21 22	<pre>11A- Direct Testimony of James F. 1438 Wilson filed June 25, 2018 (Confidential Version)</pre>	1492
23	12 - Direct Testimony of 1495	1528
24	Barbara R. Alexander in Opposition to the Joint	1010
25	Stipulation and Recommendation filed June 25, 2018	
_ •		

				1419
1		INDEX (Continued	(£	
2				
3	OCC EXHI	BITS	IDENTIFIED	ADMITTED
4 5	Re	aff Review and commendation, Case No. -1403-EL-RDR	1543	1552
6 7	Re	aff Review and commendation, Case No. -1404-EL-RDR	1546	1552
8		cket Card for Case No. -883-GE-RDR	1547	1552
9 10		ipulation and Recommendati se No. 15-833-GE-RDR	ion 1548	1552
11			1552	1552
12	In	aff's Report of vestigation by the Office the Ohio Consumers'		
13	Со	unsel		
14				
15	DUKE ENE	RGY OHIO EXHIBITS	IDENTIFIED	ADMITTED
16 17	Re Mo	2018 State of the Market port for PJM from nitoring Analytics, LLC 10-2018	1460	1494
18	31 - 57	A U.S. Energy Information	1487	1494
19	Ad	ministration Henry Hub tural Gas Spot Price	1407	1494
20	35 - st	ipulation and	1502	1529
21	Re	commendation, Case . 10-2326-GE-RDR		_0_0
22 23		efiled Testimony of . Ross Willis,	1507	
24	Ca	se No. 12-1682-EL-AIR		
25				

INDEX (Continued) _ _ _ STAFF EXHIBITS IDENTIFIED ADMITTED 6 - Prefiled Testimony in 1530 1551 Response to Objections to THE Staff Report of James W. Schweitzer filed July 2, 2018 _ _ _

1421 1 Thursday Morning Session, 2 July 19, 2018. 3 _ _ 4 EXAMINER WALSTRA: We'll go back on the 5 record. 6 We are here for Day 9 of In Re: Duke 7 Energy Ohio, regarding the global stipulation. Ms. Fleisher, would you like to call your 8 9 witness. 10 MS. FLEISHER: Your Honor, I would like to call Mr. Mark Higgins. Your Honor, may I 11 12 approach? 13 EXAMINER WALSTRA: You may. 14 MS. FLEISHER: I would like to identify 15 ELPC Exhibit 3, I believe we're on. Yes, thank you. 16 EXAMINER WALSTRA: Yes, 3. So marked. 17 (EXHIBIT MARKED FOR IDENTIFICATION.) 18 (Witness sworn.) 19 20 MARK HIGGINS 21 being first duly sworn, as prescribed by law, was examined and testified as follows: 22 23 DIRECT EXAMINATION 24 By Ms. Fleisher: 25 Q. Mr. Higgins, would you please state your

1422 name and your job title for the record. 1 2 Α. Yes. Thank you. My name is Mark 3 Higgins. I am the Chief Operating Officer of Strategen Consulting. 4 5 Ο. And do you have in front of you a document that's been identified as ELPC Exhibit 3? 6 7 Although it may not be marked as such in front of 8 you. 9 Α. My direct testimony? 10 Q. Correct. 11 A. Yes, I do. 12 And is this direct testimony that you've Q. caused to be filed in this case? 13 14 Α. Yes. 15 Q. And if I asked you all the questions in 16 this direct testimony today, would your answers be 17 the same? 18 Α. Yes. 19 MS. FLEISHER: Your Honor, I offer 20 Mr. Higgins for cross-examination. 21 EXAMINER WALSTRA: Thank you. 2.2 Go down the life. Any cross? 23 Mr. Oliker? 24 MR. OLIKER: Sure. 25 EXAMINER WALSTRA: You don't have to.

1423 1 MR. OLIKER: Thank you. 2 3 CROSS-EXAMINATION By Mr. Oliker: 4 5 Ο. Good morning, Mr. Higgins. 6 Good morning. Α. 7 My name is Joe Oliker and I represent IGS Q. 8 Energy. How are you? 9 Α. I'm very good. Thank you. 10 Ο. Just a few questions about your testimony today. First, turning to -- mainly, would you agree 11 12 you discuss about batteries? 13 Α. That is correct. And you're not offering an opinion 14 Ο. 15 regarding what services Duke is permitted to offer with its batteries under the stipulation, correct? 16 17 Α. That would be out of the scope of my 18 testimony, that is correct. Good to hear that. Thank you. 19 Ο. 20 And also you -- you are an accountant? 21 Α. I am not an accountant. 22 And are you familiar with the FERC Q. Uniform System of Accounts? 23 24 I have primarily looked at FERC Α. 25 accounting rules with respect to being able to divide

1424 1 up services from regulated assets versus merchant 2 participation. I did some work looking at some 3 regulations back when I was at Pacific Gas & Electric 4 around the accounting rules for energy storage. 5 Ο. Okay. Α. 6 But I'm not an accountant. 7 Ο. Okay. And one of those rules relates to, 8 I believe it is Account 348 when energy stored is 9 used for production, correct? 10 Α. Okay. 11 Ο. And the non-wires alternatives that you 12 discuss in your testimony, am I correct that those 13 could be offered by an entity other than Duke Energy Ohio? 14 15 Α. Non-wires alternatives I do not view as 16 being necessarily part of what you would consider to 17 be a utility's natural monopoly. So it could be 18 offered by a utility, but it could also be offered by 19 a third party. 20 Q. Thank you. 21 And I see that you are familiar with the 22 Reforming the Energy Vision process? 23 Α. Correct. 24 And regarding the non-wires alternatives Ο. 25 that have been utilized in New York, would you agree

1 that that can be done pursuant to a competitive 2 bidding process or RFP? 3 Α. Yes. And Direct Energy is actually doing 4 Ο. 5 something along those lines regarding the Brooklyn 6 project, correct? 7 The Brooklyn project is a -- was part of Α. a competitive situation, that is correct. And Direct 8 9 Energy, are you referring to the third-party 10 developer in that case? 11 Ο. Yes. 12 Α. I'm not familiar with Direct's specific 13 involvement in that project aside from the fact that 14 the Brooklyn Queens Demand Management project was 15 competitively bid. 16 And that project is supposed to save Ο. 17 Consolidated Edison several billion dollars, correct? 18 Α. It is. I don't know the specific dollar 19 amount, but generally speaking, non-wires 20 alternatives are procured because they provide a more 21 cost-effective solution than a traditional grid 22 upgrade. So, typically speaking, you would see the 23 traditional solution of being the ceiling price of 24 what a non-wires alternative bid process would --25 would select. So, for example, a non-wires

1426 1 alternative might be selected if the lowest-cost 2 solution net of benefits came in below the 3 traditional grid upgrade. MR. OLIKER: Could I have one minute, 4 5 your Honor? 6 Ο. Just a few more questions. 7 In your testimony you mention the 8 frequency regulation market at PJM, correct? 9 Α. Correct. 10 Are you familiar with the operation of Ο. 11 that market in any fashion? 12 Α. Not in depth, no. 13 Ο. And what is the level of your familiarity 14 with that market? 15 Α. My familiarity with frequency -- my 16 familiarity with frequency regulation markets is 17 broad, I would say, in the sense that I have 18 familiarity with the economics around frequency 19 regulation, participation. I understand what it is 20 and what service it provides to the grid. And I've 21 looked at it in a variety of wholesale markets across the country as one of the applications of generator 22 23 resource as well as specifically energy storage 24 resources. 25 0. Would you agree it's a highly competitive

market in each RTO? 1 2 Α. Frequency regulation is generally a market that is open for merchant participation in 3 4 various markets, yes. 5 MR. OLIKER: Okay. Thank you, your 6 Honor. No more questions. 7 Thank you, Mr. Higgins. 8 EXAMINER WALSTRA: Thank you. 9 Mr. Healey. 10 MR. HEALEY: Nothing, your Honor. 11 EXAMINER WALSTRA: Duke? 12 MR. MIZELL: Down here, your Honor. 13 Your Honor, preliminarily, Duke would 14 like to make a motion to strike certain portions 15 Mr. Higgins's testimony and I have the specific line references. I'll read it for the record. 16 17 Specifically, page 5, line 18, through page 6, 18 line 3. And then page 10, line 1, through page 28, line 5. 19 20 EXAMINER WALSTRA: Slow down a second. 21 MR. OLIKER: I am sorry. Can we start 22 over, Mike? You lost me. 23 MR. MIZELL: Sure. Page 5, line 18, 24 through page 6, line 3. Then page 10, line 1, 25 through page 28, line 5. And finally page 30,

line 19, through page 3, line 5. Your Honor, these provisions that I've outlined here, the specific provisions that I've outlined are not relevant, and outside the scope of these proceedings. The witness, himself, your Honors, describes his testimony as it pertains to the parts that are in this proceeding and to separate parts that are "in the long-term" part of the PowerForward process. So by the witness's own admission, parts of his testimony relate to incidents outside -- outside the scope of this proceeding.

1

2

3

4

5

6

7

8

9

10

11

12 In fact, the majority of the witness's 13 testimony relates to his suggestions for PowerForward 14 and not to the proposed pilot. Specifically, he 15 makes recommendations for what the PUCO should do in 16 PowerForward -- in the PowerForward proceeding, and 17 the witness is certainly free to provide comments to 18 the PUCO as part of that proceeding, but that does 19 not make them proper or, more importantly, relevant 20 to the proposed pilot in this proceeding.

21 MS. FLEISHER: Your Honor, if I may, I 22 would say that in our view, and as supported by our 23 witness's testimony, there is a relationship between 24 what is going on in this proceeding and what is going 25 on in PowerForward in terms of both looking at the

Armstrong & Okey, Inc., Columbus, Ohio (614) 224-9481

1428

1	potential for non-wires resources to provide
2	distribution services to the utility and its
3	customers. And I think a key part of Mr. Higgins's
4	testimony is explaining how changes to what is
5	proposed in the stipulation could be vital to
6	producing lessons and knowledge and information that
7	would then inform what might come out of
8	PowerForward. So they are intertwined. You can't
9	separate them and that's just a key piece of why we
10	are seeking the modifications that we are seeking in
11	this case.
12	MR. MIZELL: And, your Honor, if I could
13	just briefly point out the proceedings
14	specifically, we left Mr. Higgins we did not make
15	a motion to strike Mr. Higgins's positions in his
16	testimony as it relates to this specific pilot and
17	the applications the Commission should make to this
18	specific pilot. But, again, that does not make his
19	positions of what he recommends the Commission do in
20	PowerForward be a separate proceeding relevant to
21	these proceedings before us today.
22	MR. HEALEY: Your Honor, I would just add
23	there is a PowerForward Rider here, including a
24	specific provision that says here is Component One of
25	the PowerForward Rider which will allow Duke to

1	charge customers for anything that comes out of
2	PowerForward. If Duke would like to withdraw that
3	from the stipulation, that's fine. But to say
4	PowerForward is outside the scope of this, while they
5	are specifically asking for compensation for
6	PowerForward initiatives, you know, they don't get it
7	both ways.
8	MR. MIZELL: Your Honor, that's not what
9	we are discussing here. The PowerForward Rider is
10	separated pending the outcome of the separate
11	PowerForward proceeding. And again, Mr. Higgins is
12	free to provide whatever kind of advice he would like
13	to the Commission in that separate distinction
14	proceeding.
15	EXAMINER WALSTRA: I'm going to deny the
16	motion to strike. Obviously there is references in
17	the stipulation to the PowerForward Rider. But I
18	think historically, in terms of these ESPs,
19	especially I think the we've been pretty liberal
20	for intervenors to make proposals and proposed
21	modifications. So I'll allow the testimony to stand.
22	MR. MIZELL: Thank you, your Honor.
23	
24	
25	

	1431
1	CROSS-EXAMINATION
2	By Mr. Mizell:
3	Q. Mr. Higgins, how are you?
4	A. Good morning.
5	Q. Welcome to Ohio.
6	A. Thank you.
7	Q. Did you bring the good weather with you?
8	We've had a beautiful day out there today.
9	Just a few questions.
10	A. Of course.
11	Q. Specifically, and I believe you have your
12	testimony in front of you, on page 7, line 13 of your
13	testimony, you state that "The Company will primarily
14	use the Battery System for distribution system
15	benefits such as backup power"; is that correct?
16	A. I do state that, yes.
17	Q. Is that still your belief today?
18	A. That was based on the direct testimony of
19	Mr. Kuznar.
20	Q. I was going to say, have you read Witness
21	Kuznar's testimony?
22	A. Yes.
23	Q. And is it fair and specifically, isn't
24	it correct Witness Kuznar testifies that the energy
25	storage will be used primarily to provide system

Г

14	3	2
----	---	---

benefits and that backup power services will only be 1 2 provided during grid outages? Do you have the testimony available for 3 Α. me to review? 4 5 Ο. We can see if we have a copy of it. No, 6 I'm sorry. 7 Okay. Well, in my testimony I state that Α. 8 it will primarily use battery system for distribution 9 benefits. I did provide an example of backup power 10 as being one of those benefits, but that was not necessarily excluding other distribution system 11 12 benefits. 13 Ο. And isn't it correct that Witness Kuznar 14 mentioned a number of different distribution system 15 benefits and made specific references in his 16 testimony? 17 Α. Yes. 18 MS. FLEISHER: Sorry, I didn't mean to 19 step on my witness. Your Honor, could I just object 20 to this line of questioning to the extent it's asking 21 him to offer his opinion on what Duke's own witness 22 is testifying to. Mr. Kuznar testified. His testimony is what it is. I don't see how it's 23 24 relevant to hear what Mr. Higgins thinks Mr. Kuznar 25 said, especially without a copy of the testimony in

1 front of him.

2	MR. MIZELL: Your Honors, it's
3	foundational and it's impeachment. Mr. Higgins makes
4	the statement in his testimony that it will be
5	primarily used for system benefits such as backup
6	power, when, in fact, Mr. Kuznar's testimony what
7	I am getting to is Mr. Kuznar's testimony, in fact,
8	lists many other system benefits that Mr. Higgins
9	failed to mention in his testimony.
10	MR. OLIKER: And, your Honor, I would
11	also like to object. The witness also indicated that
12	he is not testifying regarding the services that Duke
13	is actually permitted to offer with these batteries
14	under the stipulation, which is the real issue in
15	this trial. Going back and forth about what may or
16	may not be allowed or offered in Mr. Kuznar's
17	testimony, which was submitted before the stipulation
18	was executed, is really not a relevant line of
19	cross-examination.
20	EXAMINER WALSTRA: I'm going to I'll
21	overrule. I'll allow the question.
22	MR. MIZELL: Could you read back the last
23	question for me, please.
24	(Record read.)
25	Q. And so, you would agree that those

1433

Mr. Higgins, would you agree that those other distribution service benefits are actually some of the -- are the primary focuses of the Duke Energy pilot? A. I couldn't say specifically whether they are the primary focus. However, I would agree that

in testimony a variety of different distribution benefits were cited and, from my experience, there are a variety of different applications that could be tested through the use of energy storage. What the primary benefit would be for this project is very location-specific and circumstance --

13 circumstance-specific.

Q. And, Mr. Higgins, it's correct at this -is it your understanding that at this point no specific location for the project has been identified?

18 A. That was my understanding.
19 Q. And so, then is it correct to say that
20 your testimony would be that the primary services
21 would only be identified when a location is
22 identified and a project outlined?

A. I believe you can go into a process with
a well-defined framework of what the potential
benefits could be and how you would value them. And

I do actually believe that is an important component here when you are doing -- when you are moving forward with site selection so you can understand how the system would be valued and you have a methodology in place to be able to identify what those primary benefits would be once you've identified potential sites.

Q. Mr. Higgins, do you have any independent
9 knowledge of how Duke Energy presently handles
10 non-wire alternative suggestions or projects?

A. Specifically, aside from the materials provided in this particular case, I do not. However, I am familiar with utility practices in this space, generally speaking, having worked for a utility myself and worked with a number of other utilities on the development of non-wires alternative processes.

Q. And have you worked with Duke Energy onthose issues?

A. Not specifically. However, I will say that, generally speaking, utility processes do not necessarily vary that much from one region to the next as they're well -- I would say there is a long history of distribution planning from one place to the next and it's not that different necessarily from one utility to the next aside from just the unique

1436 1 nature of each utility's service territory. 2 So is it your testimony all utilities act Ο. 3 the same? 4 A. No, I wouldn't say that. Every 5 jurisdiction has its unique regulatory environment, 6 and utilities may have slightly different processes 7 from one place to the next, but the fundamental 8 purpose of distribution planning is the same and, 9 generally speaking, the processes would be fairly 10 consistent from one jurisdiction to the next, one 11 service territory to the next. 12 MR. MIZELL: One minute, your Honor. 13 Your Honor, no further questions. 14 EXAMINER WALSTRA: Thank you. Staff? 15 16 MR. EUBANKS: Staff has no questions. 17 EXAMINER WALSTRA: Thank you. 18 Any redirect? 19 MS. FLEISHER: No redirect. 20 EXAMINER WALSTRA: Thank you. 21 THE WITNESS: All right. Thank you. 2.2 EXAMINER WALSTRA: Would you like to move 23 your exhibit? 24 MS. FLEISHER: Yes, your Honor. I would like to move ELPC Exhibit 3 into evidence. 25

	1437
1	EXAMINER WALSTRA: Thank you.
2	Subject to the motions to strike, any
3	objections?
4	MR. MIZELL: Not subject to those motions
5	to strike, your Honor.
6	EXAMINER WALSTRA: Thank you.
7	It will be admitted
8	(EXHIBIT ADMITTED INTO EVIDENCE.)
9	EXAMINER WALSTRA: Let's go off the
10	record.
11	(Discussion off the record.)
12	EXAMINER WALSTRA: We'll go back on the
13	record.
14	MR. MICHAEL: Your Honor, OCC is going to
15	call James Wilson to the stand as its next witness.
16	However, before we actually call him, OCC would like
17	to move the Bench for a ruling that Mr. Wilson's
18	nominal aggregate cost figure for Rider PSR be made
19	part of the public record. And if the Bench and the
20	company are agreeable to that, OCC proposes filing a
21	revised version of Mr. Wilson's public testimony to
22	reflect the fact that Mr. Wilson's aggregate nominal
23	cost figure for Rider PSR be part of that public
24	testimony.
25	EXAMINER WALSTRA: Thank you.

1438 We had some discussions off the record 1 2 and I believe all parties are in agreement with that and it's consistent with similar rulings with other 3 forecasting witnesses. 4 5 MR. MICHAEL: Thank you, your Honor. 6 OCC calls James F. Wilson to the stand. 7 And we would like to have premarked, your Honor, Mr. Wilson's public testimony as OCC Exhibit No. 11, 8 9 and Mr. Wilson's confidential testimony as OCC 10 Exhibit No. 11A. 11 EXAMINER WALSTRA: So marked. 12 (EXHIBITS MARKED FOR IDENTIFICATION.) 13 (Witness sworn.) 14 EXAMINER WALSTRA: Thank you. Please 15 take a seat. 16 17 JAMES F. WILSON 18 being first duly sworn, as prescribed by law, was 19 examined and testified as follows: 20 DIRECT EXAMINATION 21 By Mr. Michael: 2.2 Q. Would you state your name, please. 23 Α. James F. Wilson. 24 And where are you employed, Mr. Wilson? Ο. 25 Α. I'm an independent economist doing

1439 business as Wilson Energy Economics, located at 4800 1 2 Hampden Lane, Suite 200, in Bethesda, Maryland 20814. And, Mr. Wilson, do you have in front of 3 Ο. you what was previously marked as OCC Exhibit No. 11 4 5 and OCC Exhibit No. 11A? I believe that would be my direct 6 Α. testimony and 11A? 7 Confidential. 8 Ο. 9 Α. Okay. I have my confidential testimony 10 before me, yes. 11 MR. MICHAEL: May I approach real 12 quickly? 13 EXAMINER WALSTRA: You may. 14 Ο. I am going to hand you, Mr. Wilson, a 15 copy of the public version just so we can keep them straight, so that will be 11, and your confidential 16 17 is 11A. And drawing your attention to OCC Exhibit 18 No. 11, Mr. Wilson, the public version of your 19 testimony, was that testimony prepared by you or at 20 your direction? 21 Α. Yes. 22 Q. And drawing your attention to OCC Exhibit 23 No. 11A, the confidential version of your testimony, 24 was that testimony prepared by you or at your 25 direction?

	1440
1	A. Yes, it was.
2	Q. Do you have any modifications to either
3	Exhibit 11 or 11A, Mr. Wilson?
4	A. I do not.
5	Q. And were I to ask you the questions in
6	those exhibits today, would your answers be the same?
7	A. Yes.
8	MR. MICHAEL: OCC moves for the admission
9	of Exhibits 11 and 11A, your Honor, subject to
10	cross-examination.
11	EXAMINER WALSTRA: Thank you.
12	Any cross over here?
13	Mr. Oliker?
14	MR. OLIKER: No, thank you, your Honor.
15	EXAMINER WALSTRA: Duke?
16	MR. MILLER: Thank you, your Honor.
17	
18	CROSS-EXAMINATION
19	By Mr. Miller:
20	Q. Good morning, Mr. Wilson. My name is
21	Chris Miller, and I'm a lawyer with the law firm Ice
22	Miller, and I represent the company in this
23	proceeding. I believe I deposed you. Thank you for
24	your time on that. How are you this morning?
25	A. Great.

	1441
1	Q. So when we talked a little bit in your
2	deposition, you work for Wilson Energy Economics, and
3	I believe you indicated that you were the principal;
4	is that correct?
5	A. Yes.
6	Q. And you indicated you were an economist
7	with a small e. What does that mean, "small e"?
8	A. Well, you had suggested that was my
9	title. And that's why I said "small e." The title I
10	use is principal.
11	Q. Okay. All right. "Economist" to me
12	sounds better, but.
13	You're not an attorney?
14	A. No.
15	Q. And you don't have any legal training?
16	A. No.
17	Q. And you hesitate. I'm curious. Formal
18	legal training, do you have any informal legal
19	training?
20	A. Well, I've been working with attorneys
21	for 30 years.
22	Q. I thought that might be your answer.
23	A. My son has a law degree.
24	MR. MICHAEL: And he stayed at a Holiday
25	Inn last night.

Duke Energy Volume IX

	1442
1	A. No, I didn't.
2	Q. And you prepared the testimony that you
3	submitted on June 25, both the confidential and
4	nonconfidential in this proceeding, correct?
5	A. Yes.
6	Q. And did you receive any assistance or
7	guidance from anybody else in preparing or did you do
8	it yourself?
9	A. Myself.
10	Q. Prior to preparing that testimony, you
11	submitted on June 25, can I ask you what you reviewed
12	in preparation for compiling your thoughts and ideas?
13	A. For compiling?
14	Q. Your thoughts and ideas, I'm sorry.
15	A. Thoughts and ideas.
16	Q. Before you prepared your testimony.
17	A. Yes. Well, I reviewed the original
18	testimony application and the testimony and all
19	the discovery around that, beginning in the spring of
20	2017. I reviewed the stipulation settlement and the
21	associated testimony there and additional discovery.
22	And let's see, what else did I review? Probably
23	forgetting a few things but. Of course, I accessed
24	various public information, PJM and such, in doing my
25	research.

1443 And you said you reviewed the testimony 1 Ο. 2 of the parties. And just so I understand, did you 3 review all the witnesses that the company proffered in regards to supporting the original application? 4 Well, as we discussed, I focused on 5 Α. 6 Wathen and Rose, of course, which are relevant to the 7 work I was doing. And for the other pieces of testimony, I would typically review it through to the 8 9 purpose of the testimony and maybe the main 10 conclusions, take a look at that, and if it really 11 didn't touch on what I was doing, then I would 12 probably leave it at that. 13 Ο. And then on the supplemental testimony 14 filed in this case after the stipulation was executed 15 by the various parties, you still focused on Wathen 16 and Rose? 17 Wathen and Rose, I also reviewed Spiller Α. and a few others, Fetter, Fisher, Donlon, there might 18 19 be a few others. 20 Murderers row, right? Q. 21 Α. I don't know. I haven't met these people 22 so I. 23 Did you review testimony filed by the Q. 24 intervening parties in regards to their support for 25 or their opposition to the stipulation?

	1444
1	A. Yes, I did review some of those pieces.
2	Q. Do you know if you reviewed all of it or
3	just bits and pieces?
4	A. Well, again, I would get as far as the
5	purpose of the testimony. And my scope here is so
6	narrow compared to all the various topics in the
7	stipulation, so in many cases I would not get far
8	past the purpose of the testimony because it just
9	didn't touch.
10	Q. Okay. Fair enough.
11	And you indicated your scope is narrow.
12	So I believe you're appearing here today as an expert
13	in the economics of public utility matters, industry?
14	A. Well, the main purpose of my one of
15	the main topics of my testimony is the economic
16	analysis of the OVEC plants, yes.
17	Q. And you're appearing as an economist,
18	correct?
19	A. Yes.
20	Q. And not as a regulatory expert?
21	A. Well, I have been very involved in
22	regulatory issues and so I consider that I have
23	expertise on regulatory issues, yes.
24	Q. Do you have any training in regulatory
25	analysis?

Γ

1445 Well, I'm not sure what you mean by 1 Α. 2 "regulatory analysis," but, you know, an economist is someone who evaluates many regulatory issues, all the 3 time. 4 5 Ο. Are you an accountant? 6 Α. No. 7 And you've testified, I believe when we Q. 8 talked in your deposition and you indicated this in 9 your testimony that you've testified in other 10 proceedings in front of the Commission; is that 11 correct? 12 Α. Yes. 13 Ο. And I think you testified on behalf of 14 the OCC in most of these? 15 Α. Yes. And I believe specifically you testified 16 Ο. 17 in Case No. 14-1693-EL-RDR, et al., which is known as 18 the AEP PPA, case? 19 Α. Yes. 20 Q. And in doing so, I want to kind of get an 21 understanding of perhaps what your involvement was. In doing so, preparing your testimony for that case, 22 vou reviewed the PPA rider; is that correct? 23 24 Α. Yes. 25 MR. MICHAEL: Objection, your Honor,

relevance. What Mr. Wilson did to offer his 1 2 testimony in a completely different case involving a completely different company has no bearing on his 3 testimony here today. 4 5 MR. MILLER: I think traditionally, your 6 Honor, when a witness lists his CV and his resume in 7 testimony and indicates he testified in front of 8 other proceedings in front of the Commission, we have 9 an opportunity to ask him questions about those 10 proceedings and perhaps the testimony he gave and I 11 believe that's in there for the opportunity to offer 12 potential impeachment. 13 EXAMINER WALSTRA: Overruled. 14 Α. Yes. 15 Ο. You filed, I think, correct me if I am 16 wrong, two separate pieces of testimony in the AEP 17 PPA case, one was an initial piece regarding the 18 original proposal and then there was a supplemental 19 piece of testimony regarding a modified and updated 20 proposal following the execution of the stipulation 21 between the parties in that case; is that correct? 2.2 There might have been three. Α. 23 Q. Were there three? 24 My CV would clarify that. Well, I have Α. 25 direct testimony on September 11, 2015; a deposition;

1447 supplemental deposition; testimony at hearing; 1 2 supplemental testimony; second supplemental deposition; testimony at hearing. So I guess that's 3 two direct filings. 4 5 Ο. Two direct. One supplemental -- let's 6 call them one direct and one supplemental; is that 7 fair? 8 Α. Okay. 9 Ο. And you were deposed on all those, I take 10 it, based on your description? 11 It looks like I was deposed perhaps three Α. 12 times. 13 Ο. I would say congratulations but. 14 So I think in your initial testimony, if 15 you can remember, in your initial testimony you filed 16 in the AEP PPA case, your recommendation was the PPA Rider be rejected by the Commission; is that correct? 17 18 Α. Yes. 19 And I think you concluded the same thing Ο. 20 in your supplemental, your secondary piece of 21 testimony. 2.2 Yes, I believe I did. Α. 23 And when you did your analysis in that Q. 24 case, you did a rather comprehensive economic 25 analysis, if I remember, just taking a brief look at

1 it, in regards to putting your testimony together; is
2 that true?

Z

3

A. Yes.

Q. Can you just briefly describe the scope
and perhaps the type of analysis you might have
performed in that case to prepare your testimony?

7 Well, my recollection is that -- and, of Α. course, there were different iterations and I chose 8 9 different approaches in each case for various 10 reasons, but as I recall that case involved a number 11 of coal plants, some of which were more economic than 12 others and, consequently, under my assumptions, which 13 had more modest energy prices, it was necessary to 14 take into account that that would affect the dispatch 15 of the plants.

16 So I actually ran an hourly analysis that 17 took into account that under lower energy prices, the 18 plants would be dispatched less frequently because 19 the prices would actually be below their variable 20 cost to generate. So it affected the generation 21 amounts, in addition to the earnings that they would 22 make. It was a more complicated analysis, yes. 23 And I think you indicated in your Q. 24 commentary there, it involved a number of coal 25 plants. Did it involve the OVEC plants? Do you

1449 remember? 1 2 Α. Yes. And do you know, subsequent to the 3 Ο. stipulation, did it also involve additional plants or 4 5 just the OVEC plants? Do you remember? 6 At some point it fell back to just the Α. 7 OVEC plants as I recall, but I don't recall whether I evaluated additional plants in the supplemental or 8 9 not. 10 And did you have the opportunity, as you Ο. 11 followed along this case, it was a rather long and 12 tortured case, did you have an opportunity to review the Commission orders in that case? 13 14 Α. Yes. 15 Ο. And the Commission did not agree with 16 your analysis in regards to rejection of the PPA, did 17 it? 18 I think I recall some criticisms there, Α. 19 yes. 20 Q. And the Commission ultimately approved, in some form, AEP's PPA Rider, correct? 21 2.2 Α. Yes. 23 And I believe you also testified on 0. 24 behalf of the OCC in, I think in Northeast Ohio 25 Public Energy Council, also known as NOPEC? Welcome

1450 1 to Ohio, sir. We abbreviate and acronym everything. 2 And that was case in 14-1297-EL-SSO and that was also 3 known, I think we can refer to it, if you're comfortable, as the FirstEnergy SSO case? 4 5 Α. Okay. And you testified in that case, correct? 6 Q. 7 Α. Yes. 8 And your testimony in that case, among Q. 9 other things, reviewed the proposed retail 10 stability -- retail rate stability rider, Rider RRS, 11 and its impact. 12 Α. Okay. 13 Ο. And okay yes or okay? 14 Well, I don't remember the exact acronym Α. 15 in that particular instance. And let me try to, I guess, clean that up 16 0. 17 a little bit for you. So it was a similar kind of 18 arrangement to what we are talking about here in the 19 sense it was an agreement to pass on some OVEC costs. 20 Α. Yes. And other costs, other generation 21 costs. 22 And, again, in that case, you filed two Ο. 23 pieces of testimony and there was, I believe, an 24 initial piece and there was again a supplemental 25 piece; is that correct?

I believe there was second supplemental 1 Α. 2 testimony in that proceeding. 3 That may be the one --Q. Α. According to the CV. 4 5 Ο. That may be the one with two 6 supplementals. 7 Α. And rehearing direct testimony also. 8 Ο. And I think in that case similar, to the 9 AEP PPA case, this would be the FirstEnergy SSO case, 10 you concluded that the requested rider should be 11 rejected by the Commission; is that correct? 12 Α. Yes. I took issue both with the rider 13 conceptually and with the uneconomic resources that 14 were asked to be passed through the rider. So there 15 were really kind of two issues there. I objected to 16 the rider as a regulatory mechanism for that sort of 17 application, and I also found that the resources that 18 they were seeking to recover the costs of were uneconomic. 19 20 Ο. And some of those resources, the majority 21 of those resources were the OVEC resources, correct? 2.2 Α. Yes. 23 And, again, in that case, similar to the Q. 24 AEP case, you did a, I think, a rather comprehensive 25 analysis, economic analysis?

	1452
1	A. Yes, I believe I did that time.
2	Q. It was a similar type of analysis as what
3	you performed in AEP?
4	A. It was different. I believe it was
5	similar but different.
6	Q. Some of the inputs may be different?
7	A. I think I think there were other
8	changes in the methodology, minor changes in the
9	methodology, and each case poses a little bit of
10	different challenge, and it also depends on how I've
11	chosen to modify the original analysis.
12	So, typically, I take an original
13	analysis, you know, Mr. Rose or whoever, and I want
14	to make as few changes as possible to make it a lot
15	more realistic, but without getting super
16	complicated. And that's why the methodology might
17	change from one case to another because I'm going to
18	accept a lot of assumptions and only modify, you
19	know, the ones that seem most out of line. And then,
20	in that context, that determines whether it's
21	necessary to redo the dispatch or not for instance.
22	So the methodology did change a little bit from case
23	to case.
24	Q. Do you remember let's say from the AEP
25	PPA case, did you accept a lot of the assumptions

1453 1 that were provided? 2 Α. I always do, yes. 3 Ο. And the same for FirstEnergy? Yes. Even some I don't agree with, I 4 Α. 5 accept, because I'm trying to make a minimal set of 6 changes. 7 Did you happen to review the Commission Ο. Orders in the FE SSO case? 8 9 Α. I probably did at some point. And do you remember, did the Commission 10 Ο. 11 agree with your analysis in regards to rejection of 12 the rider? 13 Α. I don't recall, but probably not. 14 Ο. And the Commission ultimately approved 15 Rider RSR, correct? 16 I believe they approved some of these, Α. 17 yes. 18 Let's turn to your testimony, if you Ο. would, on page 3. And near the bottom this would be 19 20 lines 19 and 20, I believe, and this runs through 21 page 4, the next page, line 1, I think you indicate 22 one of your primary objectives in compiling your 23 testimony was to review the testimony of the company 24 Witness Judah Rose and provide an alternative 25 estimate or alternate estimate, right?

1454 1 Α. The assignment, yes. I am not sure 2 "objective" is the right word, but yes, that's part of what I did. 3 And did vou review Mr. Rose's 4 Ο. 5 supplemental testimony filed June 6, 2018, in this 6 case? 7 Α. Yes. Mr. Rose's testimony, his supplemental 8 Ο. 9 testimony, included a forecast regarding Rider PSR 10 covering the time period from January 1, 2018, 11 through May 31, 2025; is that correct? 12 Α. Yes. 13 Q. And I think you state on page 10 of your testimony, lines 10 and 11, that Mr. Rose's forecast 14 15 isn't -- I believe I have this correct -- is somewhat 16 optimistic, but within a reasonable range for 2018 17 through 2021; is that correct? 18 Yes, that's my opinion. Α. 19 And you also state that Mr. Rose's Ο. 20 forecast for the years 2022 to 2025, and I believe 21 this is per your description on page 10, line 14, is 22 "questionable." Do you see that? 23 Α. Yes. Of course, I expand on the 24 "questionable." 25 Ο. Yes. Understood. Because Mr. Rose's

	1455
1	forecast is, in your opinion, questionable for that
2	time period, I think you state on page 10, lines 19
3	through 20, that you prepared an alternative estimate
4	to Mr. Rose's net cost analysis of the OVEC
5	entitlement estimates to customers, and I think you
6	based that on a very simple assumption and
7	calculation, correct?
8	A. Correct.
9	Q. And in order to get there, you used
10	Mr. Rose's calculations for the '18 through '21 net
11	OVEC margins in that very simple assumption and
12	calculation; is that correct?
13	A. Yes.
14	Q. And you used the average, and tell me if
15	I am wrong, you used the average of Mr. Rose's
16	numbers for the '18 through '21 period to arrive at
17	your '22 through '25 forecast?
18	A. Yes. Under his forecast, things start
19	changing very sharply, after 2021 in a manner
20	favorable to the plants. He has both energy and
21	capacity prices rising. That seemed very unrealistic
22	to me. I consider it to be more likely that after
23	2021 things will worsen for the plants consistent
24	with, you know, forward prices which continue
25	downward.

	1456
1	So I felt that it was a conservative
2	assumption to assume that things don't get worse
3	after 2021, when, you know, I think it's probably
4	more likely they are going to worsen, but to assume
5	they just don't get worse, just stay the same after
6	2021, that's actually a conservative assumption
7	that's a little bit more favorable to the plants than
8	I would think things are really going to turn out to
9	be. So that's why I chose that assumption.
10	Q. And, again, I think we mentioned this
11	before, you did indicate in your testimony that his
12	assumptions, Mr. Rose's assumptions for '18 through
13	'21, were and I think I am quoting were
14	optimistic, but within the margins, within the
15	expectational margins of what you what you would
16	normally see?
17	A. They are within a reasonable range.
18	Q. Thank you.
19	A. In his previous testimony in March of
20	2017, he had energy and capacity prices rising very
21	sharply and very soon. I was surprised to see in
22	this case that he actually had 2018 through 2021
23	looking a lot more reasonable; much different than in
24	his testimony a year earlier.
25	Q. Essentially, you simply relied on

	1457
1	Mr. Rose's numbers for your calculation, didn't you?
2	A. I I took the average of those numbers
3	and proceed and used them for the forward period
4	which is conservative compared to actually
5	forecasting a worsening circumstance after that
6	point.
7	Q. If you turn to page 10, lines 20 and 21.
8	I believe you suggest that you assumed that the
9	economic outcomes forecasted for '18 to '21 do not
10	improve and, in parentheticals, "or worsen" after
11	'21, correct?
12	A. Correct.
13	Q. Did you perform, in your analysis, any
14	calculations with net margin averages lower than what
15	Mr. Rose proposed, assuming lesser returns?
16	A. This is the calculation I performed, the
17	one described here.
18	Q. That one.
19	A. Yes.
20	Q. And you didn't perform any calculations
21	with net margin averages higher than what Mr. Rose
22	performed and used, assuming higher returns?
23	A. Well, in my testimony I made that one
24	I presented that one calculation.
25	Q. You didn't perform any other analysis of

the OVEC net margins calculations? 1 2 Α. Well, I had performed an analysis that 3 ultimately I didn't testify to; but in terms of my testimony, that's what I did, that one calculation. 4 5 Ο. Did you provide additional workpapers to 6 the company in regards to that analysis you may have 7 performed? 8 Α. Well, I mean, it's sort of intermediate 9 efforts. Originally I considered doing something a 10 lot more complicated like I had in the AEP and FE 11 cases, for instance. And then after reviewing all 12 the information, I decided to do something very 13 simple and transparent and not something more 14 complicated. So there were some intermediate 15 unfinished efforts, but this is what I actually -- I 16 ultimately decided to present. 17 Ο. And so actually my next couple of 18 questions, which I will put into one, I think you can 19 answer quickly, you didn't perform as comprehensive 20 an analysis in this case as you did in the AEP PPA or 21 FES SSO, did you? 22 Α. That's correct. It wasn't necessary in 23 this case. 24 Mr. Wilson, on page 12, lines 22, through Ο. 25 page 13, line 1 of your testimony, you basically

Armstrong & Okey, Inc., Columbus, Ohio (614) 224-9481

1458

```
1459
     state -- correct me if I'm wrong -- "coal remains a
1
2
     larger source of generation in PJM than natural
     gas...." Do you see that?
 3
            Α.
 4
                 Yes.
 5
            Ο.
                 And do you still agree with that
 6
     statement?
7
            Α.
                 Yes. It's from the State of the Market
8
     Report.
9
            Ο.
                 That's interesting. I guess my next
10
     question, are you familiar with the State of the
11
    Market Report for PJM?
12
            Α.
                 I am.
13
            Q.
                 And it's published annually by PJM's
14
    Market Monitor, Monitoring Analytics; is that
     correct?
15
16
            Α.
                 Yes.
17
                 MR. MILLER: Your Honor, may we approach?
18
                 EXAMINER WALSTRA: You may.
19
                 MR. MILLER: And we are going to mark
20
     this document Duke --
21
                 EXAMINER WALSTRA: I have 33.
22
                 MR. MILLER: 33.
23
                 So, Mr. Wilson, what I am having handed
            Q.
24
     out to you, and I am hopeful Emily is going to hand
25
     out a complete copy of the 2018 State of the Market
```

1	Report compiled by Marketing Monitoring Analytics
2	LLC, dated May 10, 2018. I'm also having a complete
3	copy provided to your counsel, a complete copy
4	provided to the Bench, and a complete copy provided
5	to the court reporter. Because this document is over
6	600 pages in length, I'm going to
7	MR. MICHAEL: Mr. Miller, I think your
8	colleague has indicated that she's passing out the
9	wrong document so.
10	MR. MILLER: No. Big book.
11	Thank you, Mr. Michael.
12	We are going to try again and what we are
13	going to pass out this time, we're going to pass out
14	an entire copy of the 2018 State of the Market Report
15	to the Bench, to the court reporter, to opposing
16	counsel, your counsel, Mr. Wilson. And then we are
17	also going to pass out summary versions, because this
18	is a 600-page-plus document, to everyone else.
19	Everyone received a bound summary version with some
20	prefatory material and the potentially four pages I
21	think we'll talk about.
22	MR. OLIKER: Chris, could I have the date
23	on the document, so I can pull it up online?
24	MR. MILLER: Yes. 5-10-2018.
25	(EXHIBIT MARKED FOR IDENTIFICATION.)

1461 While we are passing that out, have you 1 Q. 2 seen this document before, sir? 3 Well, this is the first quarter 2018, so Α. I am a not sure I actually have reviewed first 4 5 quarter 2018. But you're familiar in general with the 6 Ο. 7 report and it comes out on a regular basis? 8 Α. Yes, I work with the annual report typically. 9 10 And can I ask you to turn to page 554 of Q. 11 that document. 12 Α. 554. 13 Q. 554, yeah. I apologize for the length, 14 but I did want you to have the whole version. 15 Α. Yes. 16 And on that page do you see Table 12-12? Q. 17 Α. Yes. 18 Can you take a moment to review that Ο. 19 table and take a look at it and familiarize yourself 20 with it, please. 21 Α. Yes. I'm ready. 22 Q. So we agree that this is a table showing 23 the total current capacity in the PJM by unit type? 24 This is capacity, yes. Α. Yes. 25 Q. And can we agree that the columns in the

	1462
1	table entitled "Combined Cycle" and "CT-Natural Gas"
2	which are, I believe, as we look across the table,
3	the second and third column, represent gas-fired
4	generation in PJM?
5	A. Yes.
6	Q. And
7	A. Much of it does have dual fuel
8	capability, yes.
9	Q. And if you add up the totals in those two
10	columns, would you agree, subject to check, and if
11	you I am happy to provide you a calculator if you
12	want, it's easier, I don't know if you have one up
13	there between the combined cycle and natural
14	gas-fired combustion turbines as of March 31, 2018,
15	and that's the date shown in the table, the total
16	gas-fired capacity is a little over 64,000 megawatts?
17	A. Yes. You are not including the "Steam-
18	Natural Gas" further down but, yes.
19	Q. That would be additional?
20	A. Yes.
21	Q. Now, if you slide over and go to the
22	column entitled "Steam-Coal" which I believe is four
23	over, not including the "Total," from the right.
24	A. Yes.
25	Q. And what does the figure on the bottom of

1463 1 that table, the --2 Α. 60,788.9. 3 Ο. So it's a little over 60,000 megawatts, correct? 4 5 Α. Yes. 6 So knowing that, in looking at those two Ο. 7 pieces of information, do you still stand by the statement that coal remains the largest source of 8 9 generation over natural gas? 10 Α. These are megawatt values. Yes. Fuel 11 diversity is about fuel which is gigawatt hours, not 12 megawatts. So if you can find the table that shows 13 that, I suspect it will show that coal remains the 14 largest source. And certainly in the report from the 15 2017 annual coal and nuclear are both around 16 34 percent of the gigawatt hours and natural gas is 17 about 27 percent of the gigawatt hours. So if we are 18 talking about fuel, we are talking about generation, 19 not capacity typically. 20 So you're not talking about capacity at Q. 21 all. 22 Α. When -- my comments about fuel diversity 23 had to do with generation, gigawatt-hours, yes. 24 Ο. And I think you used the word "source" in 25 your statement; is that correct?

1464 Which statement when? 1 Α. 2 Well, I think it was -- maybe we'll go Ο. back. Let's look at page 12, lines 22 through 3 page 13. You say "coal remains a larger source of 4 5 generation...." 6 Α. Yes. Isn't "source" necessarily capacity? 7 Q. Well, by "generation" we typically mean 8 Α. 9 gigawatt-hours. In Mr. Rose's materials, when he 10 refers to generation, he's talking about the 11 generation, the gigawatt-hours, not the capacity, 12 which is the standing ready to provide generation; 13 so, yes, I was talking about actual use of fuel to 14 generate. 15 Ο. Would you disagree with these figures in 16 regards to the percentages? 17 To the State of the Market Report? Α. 18 Q. Correct. 19 I think the State of the Market Report is Α. 20 accurate as far as I know, yes. 21 Ο. So we still -- looking at these tables, 22 it still illustrates the fact we have more natural 23 gas than we do coal, correct? 24 Are you referring to the table that shows Α. 25 installed capacity?

1 Ο. I'm referring to the table that I showed 2 you, correct. 3 MR. MICHAEL: Your Honor, I am going to object to the question as vaque, ambiguous. It's 4 5 obvious that Mr. Wilson, as an expert, is describing 6 actually what is happening -- happening in the market 7 and actually the correct terminology used in the 8 market. 9 It's equally apparent that perhaps 10 Mr. Miller is talking about something vastly 11 different and he is trying to draw a correlation 12 between the two, and I think trying to draw that 13 correlation is improper. As Mr. Wilson explained 14 very succinctly, Mr. Miller is trying to compare 15 apples to oranges, and I think any further comparison 16 in doing that is simply inappropriate. He has got to be more precise and talk actuality rather than things 17 18 that have no relation to one another. 19 EXAMINER WALSTRA: Overruled. 20 THE WITNESS: The question, please? 21 MR. MILLER: Do you want it read back? 22 MR. MICHAEL: Can you read the question 23 back, please, Karen. 24 (Record read.) 25 Α. Okay. This table, which is for first

1	4	6	6
Τ	4	6	6

1 quarter of 2018, shows installed capacity by capacity 2 type and it shows indeed, as you wanted to establish, that there is more natural gas-fired and gas-oil 3 fired installed capacity than coal at this time. 4 5 And, of course, that includes a lot of combustion 6 turbines that hardly ever run. But the facts about 7 generation, about actual creation of electricity, continue to show that nuclear and coal are the 8 9 largest sources of generation in PJM and natural gas 10 is third.

11 MR. MILLER: Your Honor, I am going to 12 move to strike everything in the second part of his 13 response that talks about generation, talks about 14 nuclear. I didn't ask him those questions and his 15 counsel objected to my line of questioning. I think 16 we have got a very specific question on the table. 17 He answered it I think concisely, but then continued 18 to run on.

MR. MICHAEL: Well, your Honor, as the past four or five minutes of questioning, I think, reveal, Mr. Wilson is an expert in this field. Counsel asking questions is mixing up, making vague, conflating different concepts. And as the expert in the field, Mr. Wilson, and I think the Commission deserves to have a straight answer, a clear answer,

1 and not mix different concepts up. 2 So Mr. Miller asked him a very broad 3 question that would continue the mix-up and Mr. Wilson, yet again, clarified that they are 4 5 talking about two different concepts. His testimony 6 is perfectly consistent, as he pointed out, with what 7 the facts are as it relates to generation; and Mr. Miller is asking him about capacity. I think the 8 record needs to be clear on those two different 9 10 concepts and that's what Mr. Wilson explained in 11 response to the answer. 12 EXAMINER WALSTRA: I think there was some 13 broadness to the question which I allowed, so I will also allow some broadness in the answer. 14 15 MR. MICHAEL: Thank you, your Honor. 16 Ο. (By Mr. Miller) Mr. Wilson, in that same 17 document, which is unfortunately large, will you turn 18 to page 65. Are you there, sir? 19 Α. Yes, I am. 20 Ο. On that page you'll note in the left-hand 21 side there are a number of bulleted items. 2.2 Α. Yes. 23 Can you take a look at the third bullet Ο. 24 down on that left-hand side. 25 Α. Yes.

1467

	1468
1	Q. Will you review that paragraph for me.
2	A. Yes.
3	Q. Can I ask you to read that paragraph?
4	MR. MICHAEL: Objection, your Honor.
5	They're offering this as an exhibit. It says what it
6	says, and having the witness read what the paragraph
7	says is not appropriate. He can ask him questions
8	about it, but asking him to read it is not proper.
9	EXAMINER WALSTRA: You are asking him to
10	read it out loud or just read it?
11	MR. MILLER: Sure.
12	EXAMINER WALSTRA: Was your question for
13	him to just read it?
14	MR. MICHAEL: Out loud.
15	MR. MILLER: Out loud.
16	MR. MICHAEL: And hence my objection.
17	EXAMINER WALSTRA: I think it says what
18	it says. If you have questions about it.
19	MR. MILLER: That's fine.
20	Q. (By Mr. Miller) So, Mr. Wilson, in the
21	queue for adding new generation and capacity in PJM,
22	based on this bullet point, it appears that
23	58,900 megawatts are expected to be gas-fired, and
24	108 megawatts are expected to be coal-fired; is that
25	correct?

Γ

	1469
1	A. Well, they are not expected to be. They
2	already are in the queue. Now, much of that will not
3	be built, of course, so I am not sure what you mean
4	by "expected to be." What's in the queue already is
5	either gas or coal. And as is typical, small
6	fractions of what's in the queue are actually built.
7	Q. Do you have any observation on how much
8	of the queue gets built?
9	A. Observation of how much of the queue gets
10	built?
11	MR. MICHAEL: Objection, your Honor.
12	Perhaps we could have a timeline,
13	Mr. Miller.
14	MR. MILLER: I believe the witness
15	answered the question that only small fractions of
16	what's in the queue gets built. Am I incorrect in
17	saying that?
18	THE WITNESS: Yes. No, it's true. There
19	are many projects enter the queue, there are many
20	issues to be resolved before a new plant actually is
21	built, so we find, over time, that some have are
22	you know, interconnection costs which are huge or
23	they have trouble getting regulatory approvals, or,
24	due to market conditions, they delay.
25	So typically, you know, the queue is a

1	much larger number than what ultimately comes on
2	line. And PJM makes those calculations all the time,
3	so I just wanted to observe that.
4	Q. And, sir, you said "we find." Who is
5	"we"? I think you said "we find." I am not sure who
6	"we" is.
7	A. Over many years, PJM has an
8	interconnection queue. Many, many possible projects
9	enter the queue. And, over time, some of those
10	projects go away and some come on line and some are
11	still sitting there. And they regularly tally that
12	up and show the percentages by different resource
13	types. This is something that you can find many,
14	many copies of this on PJM's website. And, yes, we
15	find, PJM finds, stakeholders see it.
16	It's a very interesting phenomenon that
17	there are such optimistic project developers out
18	there and many of them are willing to spend quite a
19	bunch of money to get possibilities into the queue
20	and then ultimately they don't come through. So,
21	yes, we find that a lot of that capacity will
22	ultimately not be built. And, in a way, it's a good
23	thing because they are exploring a lot of different
24	projects and different locations. They find out,
25	over time, where capacity is more needed, where it's

Armstrong & Okey, Inc., Columbus, Ohio (614) 224-9481

1471 less needed and, you know, that determines which ones 1 2 go forward and which ones fall by the wayside. So these projects are a good thing? 3 Ο. MR. MICHAEL: Objection. That's not what 4 5 he said. 6 EXAMINER WALSTRA: The witness can 7 clarify. 8 MR. MICHAEL: Thank you. 9 Α. It's a good thing there are many 10 different developers always looking for opportunities to bring forth new projects in places where they may 11 12 be needed and getting them into the gueue because it 13 takes a long time to get through the queue and 14 pushing them forward. 15 I mean, it's a good thing, that, you 16 know, we weed down from many possible projects, you 17 know, those that are probably the ones that are most 18 needed and most economic. I would say that is a good thing. Much better than, you know, there are not 19 20 enough projects and the ones that do come along 21 almost all of them are actually built. 22 So this focus on building fuel diversity Ο. 23 is positive? 24 Now you are changing the subject. Α. 25 Because we were talking about the interconnection

1472 1 queue and the number of megawatts in the 2 interconnection queue. 3 Ο. I was talking about the projects. You indicated there are a lot projects people are looking 4 5 at doing. 6 Yes. Α. 7 Correct? And I think you indicated it 0. 8 was positive that folks are out there working on 9 developing those projects. 10 Α. Yes. 11 0. And I would assume that, based on the 12 categories we cited, a lot of those projects are 13 different types of fuels. 14 Α. Well, there's a lot of wind, there is a 15 lot of gas. There's not a lot of coal at present for 16 reasons that we are all familiar with. 17 What's the big growth area? Is it gas? Ο. 18 Α. Yes. 19 And there's not much coal. Ο. 20 Α. Correct. 21 Ο. So in order to provide a little more 22 detail to what we are talking about, can I ask you to 23 turn to page 546. 24 EXAMINER WALSTRA: Can the Bench get one 25 of those smaller copies?

	1473
1	MR. MILLER: Smaller copy for the Bench.
2	EXAMINER WALSTRA: Thank you.
3	Q. Sir, if you can look at Table 12-3 which
4	I believe is on the bottom of that page. It's
5	entitled "Current project status"; is that correct?
6	A. Yes, "by fuel type."
7	Q. And we can agree that the columns in that
8	table entitled "Combined Cycle" and "CT-Natural Gas"
9	represent gas-fired generation again?
10	A. Yes.
11	Q. And if you add the totals up in those two
12	columns, would you agree, subject to check, between
13	the combined cycle natural gas and the natural
14	gas-fired combustion turbines, we've got about
15	58,278.9 megawatts in the queue?
16	A. Yes.
17	Q. And if you take a look at the column
18	entitled "Steam-Coal" again, slide over to that like
19	we did before, is the figure 108?
20	A. Yes.
21	Q. And if you take a look at Table 12-5 on
22	page 548, I believe this is also set up listing the
23	unit type again, correct?
24	A. Yes.
25	Q. And hopefully we can agree again that the

Γ

	1474
1	columns in the table entitled "Combined Cycle" and
2	"CT-Natural Gas" represent that gas-fired generation?
3	A. Yes.
4	Q. If you add the totals up in those two
5	columns, do you agree, subject to check, it also
6	states that between combined cycle and natural
7	gas-fired combustion turbines we've got about
8	58,278.9 megawatts of gas in the queue again?
9	A. Yes.
10	Q. And if you look at the column entitled
11	"Steam-Coal" again, slide over to that, it also says
12	108 megawatts; is that correct?
13	A. Yes. It's the same information just
14	broken out in more detail.
15	Q. I'm just checking.
16	Now, knowing that PJM is expecting 500
17	times more gas-fired megawatts to be added than coal,
18	do you believe coal would still be the primary source
19	of generation in the future for PJM?
20	A. Well, over time, there will be a shift.
21	I haven't done the analysis to figure out how many
22	years it will take it. Depends on coal retirements
23	and entry of new generation. Obviously that 58,000
24	megawatts in the queue isn't all going to be built;
25	some fraction of it will. So it's likely that more

Γ

1 coal will retire and at some point coal will fall 2 down below natural gas, but I haven't done any 3 analysis to determine when that might occur.

And just quickly, and I think this will 4 Ο. 5 perhaps finish up our time on this document, will you 6 turn to page 65 for me and then third bullet again 7 that very last line of this paragraph. Do you have any reason to dispute what the report says, which is 8 9 "The replacement of coal fired steam units by units 10 burning natural gas will significantly affect future congestion, the role of firm and interruptible gas 11 12 supply, and natural gas infrastructure"?

A. Well, sure. These are just generic statements. He's not saying it's going to worsen congestion or relieve it. But, yes, it will have that impact.

Q. I think you can put this away. Thanks. If you will if you'll turn to page 13 of your testimony. And I believe on page 13 you indicate that Rider PSR has no provision for the sharing of risks.

A. Correct. "The risk." By "the risk," I mean the net cost of the OVEC plants, and there are no provisions that if that net cost is large, that some of that would be borne by the company. There's

1476 no provision for sharing that risk. 1 2 And do you know, sir, if in Rider PSR are Ο. 3 there prudency reviews anticipated? Yes, I believe there are. 4 Α. 5 Ο. And does Rider PSR contain a provision to 6 disallow costs for forced outages? I don't remember those details but. 7 Α. Disallow costs for forced outages? Can you show me 8 that? 9 10 Ο. In the rider or? 11 Α. Yes. 12 I guess my question is -- I'll ask it Q. 13 differently. 14 Is there some discussion about forced 15 outages in the rider? 16 I don't recall that detail. Α. 17 Q. Okay. 18 I don't recall. There may have been a Α. 19 provision for some extreme circumstance, yes. 20 Q. And then on page 29, question -- I believe this is Question 26. That question in your 21 22 testimony asks you --Where are we? 23 Α. 24 I'm sorry. Page 29. This will be Ο. 25 Ouestion 46.

	1477
1	A. 46.
2	Q. So I believe that question asked you to
3	offer your opinion whether PSR will serve as a hedge;
4	is that correct?
5	A. Yes.
6	Q. And on page 29, line 9, I think you state
7	the answer to that question is no.
8	A. No, it would not have this effect to any
9	appreciable extent.
10	Q. So your answer is no, it's not a hedge
11	or?
12	A. No, not to any appreciable extent.
13	Q. But it could be considered a hedge.
14	A. A de minimus, insignificant hedge, it
15	could be considered, yes.
16	Q. A hedge.
17	A. An insignificant; pennies. Paying
18	dollars for a hedge of pennies is basically what it
19	is.
20	Q. Still a hedge.
21	MR. MICHAEL: Objection, asked and
22	answered.
23	A. It is a distinction without a difference.
24	Q. On page 12, lines 14 and 17 of your
25	testimony, let me know when you're there.

	1478
1	MR. MICHAEL: What lines, Chris?
2	MR. MILLER: I'm sorry. Page 12, lines
3	14 through 17, Bill.
4	Q. And I think here you indicate that the
5	potential for Rider PSR to act as a hedge is
6	doubtful; is that correct?
7	A. Well, structural what I mean here is
8	structurally, due to the time lag, it's not clear
9	that it's a hedge because if you have, say, you know,
10	a quarter like the polar vortex when market prices
11	are really high, you are going to flow that through
12	the rider in the next quarter when maybe prices are
13	much lower. So it's supposed to a hedge is
14	supposed to be opposite to the market, but because of
15	the time lag, it may actually be moving with the
16	market. So that's what I mean by "doubtful." I mean
17	structurally, because of that shift in when the costs
18	are passed through, it's not clear that it's even
19	structurally a hedge.
20	Q. We talked a little bit before about the
21	AEP PPA Rider case and the FE Rider RSR case. Do you
22	know, in the AEP PPA case, if the Commission
23	determined that the AEP PPA rider was a hedge?
24	A. I believe they did.
25	Q. And did it do the same thing in the FE

SSO case? 1 2 Α. I think it did, yes. 3 Q. Historically, have energy prices in the market been volatile? 4 5 Α. Well, you have to define that. There are 6 many periods when they aren't. Sometimes they have 7 moved up and down. Different periods of volatility 8 like the polar vortex. 9 Ο. And have capacity prices in the market 10 been volatile? Applicable to Ohio, of course, is western 11 Α. 12 PJM where prices have not really been that volatile 13 for quite a while now. They've sort of wandered 14 between somewhat below and somewhat above 100. So, 15 you know, really looking more recently, I don't 16 consider those capacity prices all that volatile. If 17 you kind of look at two- and three-year averages, you 18 are getting numbers like 120 more or less 19 consistently. And, of course, capacity price is kind 20 of your long-term price, signaling the need for new 21 capacity and, you know, potentially it's time to 2.2 exit. 23 So market participants are really looking 24 at the averages of those over time, not, you know, 25 the year-to-year movement. So capacity prices in

Armstrong & Okey, Inc., Columbus, Ohio (614) 224-9481

1479

1480 western PJM really have not been all that volatile 1 2 recently, I think, from the relevant perspective. Were capacity prices higher in May of 3 0. 4 this year? 5 Α. For the -- May of this year was 2017-2018 6 delivery year, but I'm quessing that you are talking 7 about the auction that was held in May. 8 Q. Well, tell me about the auction. Was it 9 higher? 10 MR. MICHAEL: Higher than what? 11 Objection. 12 Higher than it was the time before that. Q. 13 Α. Yes. Previous year we had 70-something; 14 this year we had 140. And like I say, average them 15 together, you have got about 100, which is kind of 16 how it's been going for many, many years now. 17 Ο. You mentioned something about the polar 18 vortex and that was in '14; am I correct? 19 Α. Correct. 20 Q. If I remember right. Did that create 21 volatility in the market? 22 There were very high prices during that Α. 23 period, yes. 24 And why was that? Do you know? Ο. 25 Α. There were very high outage rates. We

1 had had 20 years during which we had not had extreme 2 weather and we had not had very high wintertime prices; and so, many generation owners in PJM had 3 neglected things like winterization, like firming of 4 5 fuel supply over about a 20-year period before that, 6 and then all of a sudden we had this period of 7 extremely cold weather and we got the wake up call. 8 There was a lot of generation of all 9 capacity types that failed for a wide variety of 10 reason -- reasons. And, in addition, there were a 11 lot of fuel supply issues, gas fuel supply issues, 12 simply because there hadn't been any real need or 13 value in winter capacity for many years before that. 14 There had always been an enormous excess of capacity 15 in the wintertime. So we got that wake up call and, 16 of course, PJM and market participants have taken 17 many actions since then such that nothing like that 18 can really ever happen again.

Q. And I believe we talked about in your deposition, you said nothing like that can ever happen again. You stand by that statement?

A. Yes. And I clarified that, of course, those weather events can happen again and, in fact, we had such extreme weather again in the subsequent year and since then; so the weather certainly can

	1482
1	happen. But a situation where, for 20 years,
2	capacity resources in PJM have neglected
3	winterization and have not firmed their fuel supply,
4	that can't happen again because of all the many
5	actions that have been taken. We have the capacity
6	performance rules and the enormous penalties that any
7	resource that fails, when needed, faces going
8	forward; along with many, many other changes.
9	And indeed, when we've had that sort of
10	extreme weather over the last few winters, the outage
11	rates have been a little higher than normal, but they
12	haven't been anywhere near what they were in the
13	polar vortex. That just can't happen again.
14	Q. Never.
15	A. Never. Those sort of outages
16	Q. You are awfully certain.
17	A won't happen again. They happened for
18	a whole lot of reasons that are have been dealt
19	with since.
20	Q. But there's other reasons, perhaps, that
21	can impact the market we wouldn't have yet dealt
22	with?
23	A. I didn't hear that.
24	Q. There's other reasons, perhaps, that can
25	impact the market we haven't yet dealt with? We

1483 experienced the polar vortex. Is there anything else 1 2 hiding out there that might jump up and bite us? 3 MR. MICHAEL: Objection. Calls for speculation. Vague. Ambiguous. Incomprehensible. 4 5 Hold on, Jim. 6 THE WITNESS: Sorry. 7 MR. MILLER: Counsel might want to pick 8 one. 9 EXAMINER WALSTRA: Overruled. 10 Let me rephrase the question. Ο. 11 You are an expert in this field? 12 Α. Yes. 13 Q. And so, we talked about the polar vortex? 14 Α. Yes, we did. 15 Q. And I think the question I was asking you 16 is are there -- would you expect there are possibly other things out there that can occur in the 17 18 marketplace that would have an impact on the 19 volatility of the market, even assuming your 20 assumption that we've fixed the polar vortex problem? 21 Α. Yes. 22 Do geopolitical issues contribute to Ο. 23 volatility in the market? 24 Can you clarify what you mean by Α. 25 "political" issues?

1484 What goes on around the world in regards 1 Q. 2 to raw material supply, commodity supply, political infrastructure, do those affect the energy markets? 3 Well, the first things you mentioned are 4 Α. 5 market things and then you said political 6 infrastructure. 7 Would those things affect the volatility Ο. 8 of the marketplace for energy? 9 Α. Can you clarify which things you're 10 asking about? Well, let's assume that we have a large 11 Ο. 12 country that supplies us, let's assume the United 13 States, with natural gas, and they have a political 14 coup, and no natural gas is transported to this 15 country; would that have an impact on the volatility of the market? 16 17 Α. There isn't any such country. But, yes, if we were highly dependent on some place for 18 19 something and then they stopped providing it, that 20 would have an impact. 21 Ο. Do you know if inadequate fuel diversity 22 contributes to fuel diversity in the marketplace? 23 Α. Well, that's a very vague question. 24 "Inadequate fuel diversity contributes to 25 volatility." What do you mean by "inadequate"?

1485 What do you mean by "fuel diversity"? What do you 1 2 mean by "inadequate fuel diversity"? 3 Ο. Not adequate fuel diversity. MR. MICHAEL: Are you moving on, 4 5 Mr. Miller, because I was going to object to that question if you aren't. 6 7 MR. MILLER: Well, I'd like him to try to 8 answer this question. 9 Ο. Does fuel diversity contribute to market 10 swings? MR. OLIKER: Objection. Your Honor, the 11 12 question is far too vaque to answer without a lot of 13 different elements to the hypothetical. 14 MR. MILLER: Well, Mr. Wilson is the 15 expert. Well, speaking generically --16 Α. 17 MR. MICHAEL: Hold on, Mr. Wilson. 18 EXAMINER WALSTRA: He can answer if he 19 knows. 20 MR. MICHAEL: Go ahead. 21 Α. I mean, we are speaking generically, and 22 yes, of course, a less diverse fuel mix would 23 potentially be more exposed to price spikes than a 24 more diverse one, just speaking generically. 25 Q. And climate changes, do those contribute

1486 1 to volatility in the marketplace? 2 Climate changes, do you mean -- you don't Α. mean weather, you mean long-term climate change? 3 Well, let's start with long-term climate 4 Ο. 5 change. Contributes to volatility in the 6 Α. 7 electricity market? Could. 8 Q. How about weather? Weather contributes both ways. 9 Α. 10 And then finally, regulatory policies, do Q. those contribute to volatility in the marketplace? 11 12 Α. Depends on what policies. They can or 13 they can moderate. They can mitigate volatility. 14 Ο. But they impact. 15 Α. They can. 16 Q. Do they --17 Α. Which policy do you have in mind? 18 Just generally are you aware of policies Ο. 19 that have impacted the market in regards to 20 volatility. 21 Α. Generically there can be policies that 22 would have an impact on volatility, yes. 23 Q. Thank you. 24 MR. MILLER: Your Honor, may we approach? 25 EXAMINER WALSTRA: You may.

	1487
1	MR. MILLER: And hopefully we are going
2	to hand out the right document this time.
3	EXAMINER WALSTRA: Do you have a ways to
4	go? Do you have significant more on cross?
5	MR. MILLER: Five hours.
6	(Laughter all around.)
7	MR. MICHAEL: That's what I took it as.
8	MR. MILLER: Five minutes.
9	Q. Mr. Wilson, what we are handing out is
10	the EIA U.S. Energy Administration, Henry Hub natural
11	gas spot prices for '98 through 2018. Do you see
12	that? And this is the document that is produced by
13	the United States Energy Information Administration?
14	A. Yes.
15	MR. MICHAEL: Are we marking this as an
16	exhibit, Mr. Miller?
17	MR. MILLER: Yes. I believe we're
18	EXAMINER WALSTRA: 34.
19	MR. MILLER: 34, thank you.
20	(EXHIBIT MARKED FOR IDENTIFICATION.)
21	Q. And I am not going to ask you to look at
22	all the numbers down below, but just the chart, if
23	you will. Are you familiar with this?
24	A. Yes.
25	Q. And subject to check, is this an accurate

1488 representation of the document? 1 2 Α. Yes. 3 It's off the federal website. 0. This chart that you see on the top of the 4 5 page, it shows some pretty heavy peaks and valleys, 6 correct? 7 Yes. Especially before 2010. Α. 8 Ο. And it still shows, even after 2010, some 9 rather significant swings, correct? 10 Well, we're swinging between price levels Α. 11 that we thought we would never see again, but it does 12 move. You see sort of 2s and 4s in there, yes. 13 Q. And this chart illustrates the natural 14 gas swings in spot price? 15 MR. OLIKER: Objection. The attorney has 16 not established any relevance to the Henry Hub in any 17 price in the region in which the OVEC plants exist to make this line of cross-examination relevant on 18 19 volatility. 20 MR. MILLER: I don't believe we were 21 talking about volatility in the market. We talked about gas being volatile, we went through a line of 2.2 23 questioning, and now I am asking about this document, 24 it's a federal document, it just happens to cover the 25 Henry Hub.

	1489
1	MR. OLIKER: And, your Honor, the Henry
2	Hub is located in Louisiana.
3	MR. MILLER: We were talking generically
4	about the market. I think we used the word "generic"
5	a number of times.
6	MR. MICHAEL: Maybe so, but now he is
7	getting beyond generic. We're talking specifically
8	about Henry Hub.
9	EXAMINER WALSTRA: I'll allow the
10	questions.
11	MR. OLIKER: Thank you.
12	THE WITNESS: And the question is?
13	(Record read.)
14	A. This chart shows the movements in the
15	Henry Hub spot price which is I believe it's the
16	daily price, right? So this is the price that's
17	balancing the market. Most transactions, of course,
18	occur on a monthly or longer-term basis. But, yes,
19	this is the daily price movements.
20	MR. MILLER: Can you give me a minute?
21	I think that's all I have.
22	EXAMINER WALSTRA: Thank you.
23	Staff?
24	MR. EUBANKS: Staff has no questions.
25	Thank you.

1490 1 EXAMINER WALSTRA: Thank you. 2 Are there questions for the confidential 3 portion? Okay. Let's take a 10-minute recess and 4 5 come back for redirect. 6 (Recess taken.) 7 EXAMINER WALSTRA: Go back on the record. 8 MR. MICHAEL: Thank you, your Honor. We have brief redirect. 9 10 EXAMINER WALSTRA: Okay. 11 12 REDIRECT EXAMINATION 13 By Mr. Michael: 14 Mr. Wilson, I wanted to draw your Ο. 15 attention back to the State of the Market Report for 16 PJM Q1 2018 and Mr. Miller's questions regarding that 17 document, okay? 18 Α. Yes. 19 And do you remember the discussion with Ο. 20 Mr. Miller regarding fuel diversity? 21 Α. Yes. 22 Ο. And do you remember the back and forth 23 that you had with Mr. Miller regarding the proper 24 measure of fuel diversity and gigawatts versus 25 capacity?

1491 Gigawatt-hours, yeah, versus megawatts of 1 Α. 2 capacity, yes. And do you recall your statement to 3 Ο. Mr. Miller in response to his questions that you 4 5 could probably look through that document and find 6 the gigawatt-hours regarding fuel diversity? 7 Α. The gigawatt hour fuel mix, yes. And have you had the opportunity to look 8 Ο. 9 back in that document to see if, in fact, you could find it? 10 11 Yes, we did. Α. 12 Q. And could you point to the page that you 13 found that, please. 14 I believe it's 113. Α. 15 Q. And are you referring to Table 3-9 on 16 page 113? 17 Α. Yes. 18 And what does Table 3-9 on page 113 Ο. 19 reflect regarding gigawatt-hours for PJM generation? 20 Α. Yes. This is PJM generation by fuel 21 source, gigawatt-hours, for January through March, 22 comparing 2017 and 2018. So, again, it's just first 23 quarter, but it does show the generation by fuel 24 source. 25 Q. And what is the generation by fuel source

1492 for coal? 1 2 Α. For coal, it's indicated to be 31.4 3 percent. And nuclear? 4 Ο. 5 Α. And nuclear is shown as 34.4 percent. 6 Ο. And gas? 7 Α. And gas is shown as 27.0 percent. 8 MR. MICHAEL: Thank you. I have no 9 further questions, your Honor. EXAMINER WALSTRA: Thank you. 10 11 Additional cross? No? 12 Thank you. 13 Duke, would you like to -- or OCC, move 14 your exhibits? 15 MR. MICHAEL: Yes, your Honor, OCC would 16 like to move OCC Exhibits 11 and 11A, please. 17 EXAMINER WALSTRA: Any objections? 18 Hearing none, they will both be admitted. 19 (EXHIBITS ADMITTED INTO EVIDENCE.) 20 MR. MICHAEL: And my colleague pointed 21 out to me it will be subject to disclosing the figure 2.2 we talked about earlier in the public version. 23 EXAMINER WALSTRA: Right. 24 MR. MICHAEL: I'll refile that. 25 EXAMINER WALSTRA: And Duke, would you

1 like to move your exhibits? 2 MR. MILLER: Yeah. We will move Exhibit 33 and 34. And I think on 33, instead of the large 3 version, we thought we would just move the smaller 4 5 version because it's more convenient. MR. MICHAEL: Your Honor, we -- we have 6 7 no objection to moving the entirety of Exhibit 34 8 into the record. I think it's appropriate that --9 oh, was it 33, I apologize. The Q1 State of the 10 Market Report. We would suggest that the entire 11 document comes in. We talked about many different 12 pages in the entire document and we also talked 13 about, in response to cross-examination, an 14 additional page that's probably not in the smaller 15 version, so I think the entire document needs to come 16 in. We don't have any objection to that. 17 EXAMINER WALSTRA: I think at this point 18 now that we've referenced outside --19 MR. MILLER: For convenience, would the 20 OCC just want to move in that page? 21 MR. MICHAEL: No. We would like the 22 entire document in. MR. MILLER: I'm fine with the entire 23 24 document. I was trying to save everybody --25 MR. MICHAEL: I appreciate that. I just

Armstrong & Okey, Inc., Columbus, Ohio (614) 224-9481

1493

1494 think for the record it needs to be the whole thing. 1 2 EXAMINER WALSTRA: We will admit the 3 entire document. (EXHIBIT ADMITTED INTO EVIDENCE.) 4 5 EXAMINER WALSTRA: As well as Exhibit 34. MR. MILLER: Thank you. 6 7 (EXHIBIT ADMITTED INTO EVIDENCE.) 8 EXAMINER CATHCART: OCC, would you like 9 to call your next witness? 10 MR. HEALEY: Thank you, your Honor. The Consumers' Counsel would like to call Barbara 11 12 Alexander. And if I may approach? 13 EXAMINER CATHCART: You may. 14 (Witness sworn.) 15 EXAMINER CATHCART: You may be seated. 16 THE WITNESS: Thank you. 17 MR. HEALEY: Your Honor, at this time I 18 would like to mark the prefiled testimony of Ms. Barbara Alexander as OCC Exhibit 12. I would 19 20 note that it was filed in three parts on the docket, 21 so there's the testimony and then there are 27 2.2 exhibits which were filed in two parts because of the 23 length. So this would be -- Exhibit 12 includes 24 those three filings. 25 EXAMINER CATHCART: So marked.

	1495
1	(EXHIBIT MARKED FOR IDENTIFICATION.)
2	
3	BARBARA R. ALEXANDER
4	being first duly sworn, as prescribed by law, was
5	examined and testified as follows:
6	DIRECT EXAMINATION
7	By Mr. Healey:
8	Q. Good morning. Could you please state
9	your name for the record.
10	A. Barbara R. Alexander.
11	Q. And do you have in front of you what has
12	now been marked as OCC Exhibit 12?
13	A. I do.
14	Q. And what is OCC Exhibit No. 12?
15	A. This is my direct testimony and exhibits
16	dated January 25, 2018.
17	Q. And did you draft this testimony
18	yourself?
19	A. I did.
20	Q. Do you have any changes today?
21	A. No, I don't.
22	Q. If I were to ask you the same questions
23	found in this testimony, would your answers be the
24	same?
25	A. Yes.

Γ

1496 1 MR. HEALEY: Your Honor, OCC moves for 2 the admission of OCC Exhibit No. 12, subject to 3 cross-examination. Thank you. 4 EXAMINER CATHCART: Thank you. 5 Any cross-examination? Duke. 6 7 MS. WATTS: Thank you, your Honor. 8 _ _ _ 9 CROSS-EXAMINATION 10 By Ms. Watts: 11 Good morning, Ms. Alexander. Q. 12 Α. Good morning. 13 Ο. Now, first of all, let me say my name is 14 Elizabeth Watts. I'm with Duke Energy. And you and 15 I met over the telephone previously, I believe. 16 Α. The deposition. 17 Ο. Yes. 18 A. Yes, ma'am. 19 Okay. And, Ms. Alexander, you are an Ο. 20 attorney, but you're not licensed in Ohio, correct? 21 Α. That is correct. 22 And you do not have any technical Ο. 23 expertise in the field of automated metering 24 infrastructure or meter data management systems, 25 correct?

	1497
1	A. I'm not a technical designer or engineer
2	or installer of those systems, that is correct.
3	Q. Okay. And you have never been retained
4	as an expert to conduct an audit of a utility's
5	SmartGrid deployment, correct?
6	A. Post deployment, no.
7	Q. Is it fair to say that based on your
8	years of experience, you have a familiarity with
9	standard ratemaking principles?
10	A. Yes.
11	Q. And you understand what a rider is?
12	A. Yes.
13	Q. Okay. And you're aware that during the
14	time Duke Energy deployed its SmartGrid, that there
15	was a midterm review of that deployment and the
16	midterm review was involved was undertaken in a
17	case that's captioned 10-2326? Does that sound
18	familiar to you?
19	A. Yes, it does. And yes, I'm familiar with
20	that proceeding.
21	Q. And you referred actually to that
22	proceeding in your footnote 2, on page 2 of your
23	testimony, did you not?
24	A. Well, I've referred to it probably more
25	than once, but yes.

1498 1 Ο. At least in that footnote. 2 Α. Yes. 3 Q. Okay. And you've reviewed the stipulation and the Commission order in that case, 4 5 have you not? 6 Yes, I have. Α. 7 Have you reviewed anything else in Ο. relation to that particular case? 8 9 Α. The MetaVu Report which is referenced in 10 that proceeding. 11 Okay. Anything else? Q. 12 Α. No. It was a stipulated resolution. 13 Q. Okay. 14 Α. So that was the key. 15 Q. But you did review the stipulation. 16 I did. Α. 17 Okay. So if I refer, in the course of my Q. 18 questioning, to the "midterm review," you and I will 19 understand that it's that proceeding that we are 20 referring to, correct? 21 Α. Yes. 22 And if I reference the "MetaVu audit," Q. 23 you will understand that that's an audit that was 24 performed by MetaVu, Inc. that was filed in the 25 docket in that proceeding, correct?

	1499
1	A. Yes.
2	Q. Okay. Now, when approximately were you
3	retained by OCC in connection with these proceedings?
4	A. I don't remember the date. It was in the
5	context, I believe initially, of the CEUD proceeding
6	which I have also cited in my testimony. I believe
7	you asked and received the documents associated with
8	my consultancy with the OCC, so that's a matter of
9	whatever it was. You know that somewhere in your
10	files.
11	Q. All right. And was that approximately
12	2016?
13	A. That sounds correct to me, yes.
14	Q. Okay. And are you aware of when Duke
15	Energy completed deployment of its SmartGrid?
16	A. According to the Staff, I would rely on
17	their certification of that deployment, and that
18	happened over a year ago.
19	Q. Could it perhaps have been longer than a
20	year?
21	A. There is a date that that is known.
22	Whether I can recall it or not, I can't tell you
23	right now.
24	Q. Okay. So your employment or your
25	retention by OCC has come essentially at the very end

	1500
1	of the company's deployment process, correct?
2	A. That is correct.
3	Q. So your review of the company's actions
4	are essentially retroactive retrospective?
5	A. That is entirely correct.
6	Q. And in preparing your testimony, did you
7	go back and review any of Duke Energy Ohio's rider
8	applications that occurred annually as it was
9	continuing through deployment?
10	A. There are some of those materials that
11	are referenced, I believe in my testimony. The
12	actual submission of costs and the Staff determined
13	that the costs were, in fact, incurred and allowed to
14	be recovered in the rider were not something that I
15	spent a lot of time on.
16	Q. Did you understand each of those riders
17	involved a prudence review with respect to the costs
18	that were incurred annually?
19	A. No.
20	Q. Did you review any of the testimony that
21	was filed along with those applications in those
22	rider proceedings?
23	A. I can't say that I thoroughly reviewed
24	all of them, but I believe that I reviewed some here
25	and there, yes.

	1501
1	Q. Did you review any
2	A. I never found any reference to prudence
3	in those documents.
4	Q. Okay. Did you recall any reference in
5	any of those prior cases to matters involving
6	time-of-use rates?
7	A. I am aware of the mid-deployment review
8	stipulation and order with regard to that. I
9	reviewed I looked at Duke's current tariffs for
10	time-of-use rates for residential customers. Yes.
11	Q. And is it your understanding that in
12	addition to a review of the company's deployment
13	during what we are calling the midterm review, there
14	was also a request for cost recovery for that for
15	the year previous?
16	A. In the rider?
17	Q. Yes.
18	A. Yes, I'm aware of that.
19	Q. Okay. So it's been your testimony that
20	you have reviewed the stipulation in that midterm
21	review case, correct?
22	A. Yes.
23	Q. Do you have a copy of that with you?
24	A. No.
25	MS. WATTS: Your Honor, could we have

1502 this marked as Duke Energy Ohio, I think we are up to 1 2 Exhibit 35 or 36? 3 EXAMINER WALSTRA: 35. MS. WATTS: 35. 4 5 EXAMINER CATHCART: So marked. (EXHIBIT MARKED FOR IDENTIFICATION.) 6 MS. WATTS: And may we approach? 7 8 EXAMINER CATHCART: You may. 9 THE WITNESS: So the document you've 10 handed me is just the stipulation, not the order that 11 describes it or discusses it. 12 O. Correct. 13 Α. Okay. Thank you. MS. WATTS: One moment, please. Counsel 14 15 doesn't have a copy and I thought we had a copy for 16 him, so I apologize. 17 EXAMINER WALSTRA: You can use one from 18 the Bench. 19 MS. WATTS: I apologize. 20 And, Ms. Alexander, you have reviewed Q. 21 this document previously, correct? 22 Α. Yes. I believe it was attached to the Commission's Order. 23 24 Q. Okay. 25 Α. Yes.

	1503
1	Q. And on page would you turn to page 5
2	of that stipulation, please.
3	A. Yes.
4	Q. Looking at page 5, beginning pardon
5	me, with Section II that's entitled "Netting of
6	Benefits Against Costs." Do you see that?
7	A. Yes.
8	Q. And are you familiar with the provisions
9	that are included in that section of the stipulation?
10	A. I've read them, yes.
11	Q. And is it correct that that provision
12	sets forth a methodology for reducing the annual
13	revenue requirement by an amount equal to the value
14	of operational benefits levelized over four years?
15	A. That was an agreed-upon level of
16	reduction in revenue requirement for that purpose in
17	this document, yes.
18	Q. And did you review any subsequent
19	proceedings to ensure that value was, in fact,
20	returned to customers each year?
21	A. During the period of the rider?
22	Q. Correct.
23	A. I did not.
24	Q. Do you have any reason to believe that it
25	was not returned to customers?

	1504
1	A. I have no opinion on that matter. I
2	presume it's a matter of public record.
3	Q. Okay.
4	A. That was not the subject of my testimony.
5	Q. Is it not the case, Ms. Alexander, you
6	recommend the that the Commission reduce the
7	revenue requirement by \$12.933 million, which you
8	believe is the agreed-upon annual value of SmartGrid
9	benefits to customers under the mid-deployment review
10	standard?
11	A. No, ma'am. You're misreading my
12	recommendation. My point is that the Staff did not
13	nor has the company been able to document the actual
14	O&M benefits that it was required to provide as a
15	condition of the rate case which we are now involved
16	in, this proceeding, post deployment.
17	Q. Okay.
18	A. And I said if that information is not
19	available, at the very least the Commission should
20	ensure that that particular amount that you just read
21	be re reflected in the revenue requirement for
22	this case, but my main concern is the lack of any
23	documentation of actual O&M benefits.
24	Q. Okay. So just so we're clear, if you
25	wouldn't mind turning to page 3 of your testimony.

1505

1

25

A. Yes, ma'am. Yeah.

Q. So lines 4 through 6 where you're saying you recommend that the revenue requirement be reduced by 12.933 million. Is it your testimony that that recommendation is conditional upon -- that your recommendation is that that netting only occur if savings have not otherwise been recognized in the company's rate case revenue requirement?

9 Α. Right. That is the -- that is the 10 minimum amount that we have on the public record as a 11 result of this stipulation that you're pointing me to 12 in the Mid-Deployment Review Settlement. My main 13 concern is the lack of compliance with the other 14 provisions of this stipulation that required an 15 actual level of benefits to be identified in this 16 rate case.

Q. Okay. Do you know when was the last time the company provided a netting of that 12.933 million in its rider applications?

20 MR. HEALEY: Objection, your Honor. 21 Assumes facts not in evidence. The question assumes 22 that was, in fact, done, and there is nothing in the 23 record of this case demonstrating that has or has not 24 been done through any rider.

EXAMINER CATHCART: Overruled. The

witness can answer if she knows. 1 2 Α. I'm not aware of the -- all the line 3 items in the prior rider proceedings. I would assume the company did as required with regard to that 12.9 4 5 in the prior rider proceedings. There is no 6 discussion by the Staff of any amount in its proposed 7 revenue requirement that's at issue in this case that would allow me to determine how the rate case revenue 8 9 requirement was calculated in light of this 10 requirement. 11 Okay. So let's talk about the rate case Ο. 12 revenue requirement for a moment. 13 Α. Yes. 14 Did you review any of the financial Ο. 15 statements related to the rate case revenue 16 requirement in -- in this proceeding? 17 The Staff Report is what I think Α. Yes. 18 you are referring to. 19 Ο. Yes. 20 Α. Yes. 21 Ο. And in connection with the Staff Report, 22 did you compare the revenue requirements in this case 23 with a previous rate case in order to determine 24 whether the revenue requirement had, in fact, gone up 25 or down?

1506

	1507
1	A. I saw the number, but that was devoid of
2	any explanation with respect to the SmartGrid actual
3	or even estimated level of benefits associated with
4	O&M as promised by the company.
5	Q. Okay. Just so that we have a clear
6	record, let's let's take a look at that.
7	MS. WATTS: Your Honor, I would like to
8	have marked as Duke Energy Ohio 37
9	EXAMINER WALSTRA: 6.
10	MS. WATTS: 36, the prefiled testimony of
11	Ross Willis in Case No. 12-1683-EL-AIR, and may we
12	approach?
13	EXAMINER CATHCART: So marked, and you
14	may.
15	(EXHIBIT MARKED FOR IDENTIFICATION.)
16	A. But that's not this proceeding; is that
17	correct?
18	Q. That's correct.
19	A. Oh, okay. Very good.
20	Q. And, Ms. Alexander, there is a Revised
21	Schedule C-2.
22	A. I don't have oh, I do have it, excuse
23	me.
24	Q. Attached to that document.
25	A. Is there a page number you can point me

```
1508
 1
     to?
 2
                 Momentarily, yes.
            Q.
 3
            Α.
                 Okay.
 4
            Ο.
                 And I apologize because apparently there
 5
     are not page numbers.
                 There are no page numbers.
 6
            Α.
 7
                 It's towards the back and the schedules
            Ο.
 8
     are labeled at the top right corner and it's Revised
     Schedule C-2.
9
10
            Α.
                 I've got that.
11
                 Okay. And in particular we'd be looking
            0.
12
     at line 20 which is the "Total Operation and
13
     Maintenance Expense" that was requested or which
14
     Staff approved in that rate case. Do you see that?
15
                 MR. HEALEY: I am going to object, your
16
     Honor.
             There is no foundation yet for this document.
17
     The witness has not testified she has ever seen it or
18
     knows anything about it.
19
                 MS. WATTS: Your Honor, I am just asking
20
     a question. I am not offering the document for
21
     admission just yet.
2.2
                 MR. HEALEY: Can I have the question
23
     reread, please.
24
                 The document is --
            Α.
25
                 MR. HEALEY: Barbara, hold on.
```

1509 1 Α. I'm sorry, excuse me. 2 (Record read.) 3 MR. HEALEY: Your Honor, I would further object to the form of that question. Staff doesn't 4 5 approve anything in a rate case nor is there any 6 evidence that any of these numbers were approved by 7 the Commission. 8 MS. WATTS: I did not represent that they 9 were approved by the Commission. I only asked if 10 Staff -- and I will correct my question -- Staff's 11 recommendation in the case. 12 MR. HEALEY: I would again object that 13 there is no evidence of what Staff did or did not 14 recommend in this case. The witness has not seen 15 this document. There's no foundation to ask her to 16 answer a question about what Staff did or did not 17 recommend in a case she did not participate in. 18 There's no way the witness has that knowledge and she 19 should not be required to try to answer that type of 20 question. 21 EXAMINER CATHCART: Overruled. T'11 22 allow the question. 23 (By Ms. Watts) Ms. Alexander, at line 20, Q. 24 there is a number that represents total operation and 25 maintenance expense. Do you see that?

1510 I do see the number. 1 Α. 2 And the adjusted revenue and expense Q. column indicates for line 20 that that number is 3 163,367,730. Do you see that? 4 5 Α. I see the number. 6 Ο. Thank you. 7 Would you turn to the Staff Report in 8 this proceeding, please. 9 MS. WATTS: And we would ask that be 10 marked as Duke Energy Ohio Exhibit 36. 11 MR. HEALEY: It's already in. 12 MS. WATTS: Okay. May we approach? 13 EXAMINER CATHCART: You may. 14 EXAMINER WALSTRA: Staff Exhibit 1, is 15 that your reference? 16 MS. WATTS: Yes. And, Ms. Alexander, this document is 17 Ο. 18 actually numbered, so if you would go to page 104, 19 please. 20 Α. I'm there. 21 Ο. And at page 104, again on line 20, and 22 first of all, we agree that this is labeled Schedule 23 C-2 and it's entitled "Adjusted Test Year Operating 24 Income for the Twelve Months ended March 31, 2017"? 25 Is that what you see on the top of the page?

	1511
1	A. Yes.
2	Q. Okay. And referring to line 20, there's
3	a figure for total operation and maintenance expense,
4	adjusted revenue and expenses, and do you see that
5	number?
6	A. I do.
7	Q. And does it say \$147,513,041?
8	A. It says that, yes.
9	Q. And simple math would suggest to both of
10	us that that number is lower than the number that was
11	in the previous schedule.
12	MR. HEALEY: Your Honor, I am going to
13	object to this line of questioning. Again, we are
14	just asking the witness to read numbers off of two
15	different pieces of paper and do subtraction. The
16	witness is not here to do math. These documents
17	speak for themselves. We still haven't established
18	what the previous document even was or if any of
19	those numbers were approved by the Commission in that
20	case. This is entirely irrelevant. Counsel is
21	trying to put words into the witness's mouth that she
22	is not making herself and we are using documents for
23	an improper purpose here.
24	I would also point out the Staff Report
25	in this case has not yet been approved. There is a

1512

1	settlement that modifies portions of the Staff
2	Report. We have not established this Schedule C-2 in
3	the Staff Report is going to be approved by the
4	Commission either. This is entirely speculative and
5	inappropriate questioning for this witness and well
6	outside the scope of her testimony.
7	MS. WATTS: Your Honor, the gist of this
8	witness's testimony is the company has not accounted
9	for its SmartGrid savings as a result of its
10	SmartGrid deployment. A summary review of the Staff
11	Report in the prior case and the Staff Report in this
12	case would show that the revenue requirement has gone
13	down and that's all I want to demonstrate.
14	MR. HEALEY: Your Honor, the company had
15	an opportunity to make that case both in its
16	responses to discovery from OCC, which it did not do,
17	and with its own witnesses, which it did not do. The
18	time to do that is not on cross-examination of OCC's
19	witness using documents that she has not seen and
20	cannot verify.
21	MS. WATTS: The fact she has not seen
22	them is irrelevant.
23	EXAMINER CATHCART: I am going to
24	overrule the objection and allow the line of
25	
	questioning.

```
1513
```

Q. (By Ms. Watts) So, Ms. Alexander, you did not review any of these numbers prior to crafting your testimony, correct?

I definitely reviewed the Staff Report. 4 Α. We conducted -- we were unable to conduct discovery 5 6 with the Staff, we attempted discovery of the 7 company, to determine the actual O&M benefits that 8 the company promised with regard to SmartGrid. There 9 is no discussion of what this number means or that it's related at all to the SmartGrid deployment in 10 11 Ohio. So the numbers are what they are. But they 12 are meaningless for the purpose of my testimony, 13 ma'am.

Q. So if the company is demonstrating O&M savings by virtue of the financial statements that were filed in connection with its rate case, you would not agree that that is sufficient to demonstrate a reduction in O&M based on SmartGrid deployment?

A. I would not, ma'am. You would need some facts to discuss all the different inputs to O&M that may or may not have had an impact on these numbers.

23 Q. Okay. And in support of your argument to 24 that effect, you cite to Paragraph e on page 16 of 25 the midterm deployment stipulation, correct?

1514 1 Α. I'm turning there. Okay. 2 Is that correct? Q. 3 Α. Well, where are you pointing me specifically, please? 4 5 Q. Paragraph e on page 7 of the stipulation. 6 Α. Oh, 7. I misheard. D and e, yes. 7 Okay. And with reference to Paragraph d, Q. beginning with the sentence "The test year used in 8 the base rate application," do you see that sentence? 9 10 Α. Yes. 11 It indicates that the test year will Ο. 12 begin no earlier than full deployment, correct? 13 Α. No earlier than the date of full 14 deployment. 15 Ο. And the -- and following on, "such that 16 the revenue requirement requested in that case will 17 reflect the level of the benefits attributable to 18 SmartGrid...." Do you see that? And then finish the sentence "...which 19 Α. 20 have actually been achieved by the Company and all 21 prudently incurred current costs associated with the 22 program." 23 And thank you for reading the whole Q. 24 sentence. 25 Α. Yes.

1515 1 Q. So is it your understanding that there 2 was something more to be done beyond just 3 demonstrating savings in the revenue requirement in 4 the rate case application? 5 MR. HEALEY: Again, your Honor, I would 6 object. This is assuming facts not in evidence. 7 There is no evidence there has been a reduction in 8 the revenue requirement for O&M, and the question 9 assumes that there was, therefore it's impossible for 10 the witness to answer this question accurately. 11 EXAMINER CATHCART: Overruled. The 12 witness can answer if she knows. 13 Α. The OCC attempted repeatedly to obtain 14 the documentation from the company about the actual 15 benefits that were going to be identified and 16 reflected in this revenue requirement, and the 17 company said we don't track those anymore. 18 Correct. And do you have a specific Ο. 19 discovery response that you recall? 20 Α. It's attached to my testimony as an 21 exhibit. 22 Okay. And is it your understanding then Ο. 23 that something more was required than the number that 24 reflects savings in the revenue requirement? 25 Α. Absolutely. Because the number in the

1516 revenue requirement is not identified as relating to 1 this requirement that you document as a result of the 2 stipulation. 3 Understood. And you were not -- you had 4 Ο. 5 no involvement in the -- in the midterm review case, 6 correct? 7 That is correct. Α. 8 Q. Looking at page 8 of your testimony. 9 Α. Yes. 10 At line 15 you have a sentence that says Ο. 11 "Nor is there any evidence that Duke submitted any 12 proposal to the PUCO to install the Itron metering 13 system or sought PUCO approval to operate two 14 metering systems." Do you see that? 15 Α. Yes. 16 Ο. What regulation or statute do you believe 17 requires the company to specifically request approval 18 from the PUCO for deploying that Itron metering? 19 Α. It would be a standard regulatory policy 20 that in the event of approval of a specific 21 investment as Duke proposed it would deploy, to get 22 approval and the creation of the rider to pay for 23 that approval, that any significant change in the 24 costs and the design and the implementation of that system that became known to Duke as not complying 25

1 with its promised benefits, should obviously have 2 been required of the company to notify the Commission formally, to explain the situation, and seek 3 regulatory approval of whatever it sought to do to 4 5 correct its deficiencies. Outside of your statement that it would 6 Ο. 7 be normal regulatory policy, are you aware of any statutes or Commission -- Ohio Commission regulations 8 9 that would require such a filing? 10 Well, that would require research that I Α. 11 have not done as to the precedent for the basis for 12 my statement, but I'm very comfortable with my 13 suggestion of the appropriate and reasonable 14 regulatory policies that Duke should have known to 15 follow in this case. So it's your -- so you have just 16 0. 17 testified that you did not do any legal research into 18 whether there is such a requirement in Ohio? 19 Α. I sincerely doubt there is a statute that 20 says if some company finds that it got approval for 21 investment and it installed a totally different investment as a result, that it requires a specific 22 23 public filing by the utility. That's just common 24 regulatory policy to expect such an action to be 25 undertaken. And I've had 30 years experience in the

Armstrong & Okey, Inc., Columbus, Ohio (614) 224-9481

1517

	1518
1	regulatory field on which I base my opinion.
2	Q. And is it your understanding that with
3	the initiation of the deployment of SmartGrid meters
4	in Ohio, Duke Energy Ohio established a collaborative
5	group to discuss the deployment with interested
6	stakeholders?
7	A. I'm aware there was a working group or
8	collaborative group. I don't know the exact name,
9	but I have been made aware of that situation, yes.
10	Q. Okay. And were you made aware that
11	collaborative group met monthly at the Commission?
12	Yes, monthly at the Commission from the beginning of
13	the deployment?
14	MR. HEALEY: I object, your Honor.
15	A. I have no knowledge.
16	MR. HEALEY: I'll withdraw my objection.
17	A. I have no knowledge of the frequency of
18	its meetings.
19	Q. Sure. And you never attended any such
20	meeting, right?
21	A. No, I did not.
22	Q. So if the change in meter brand or meter
23	fashion was discussed in such a collaborative, you
24	would have no knowledge of that, correct?
25	A. That's correct.

1519 1 Q. Also on page 8, at line 17 of your 2 testimony. 3 Α. Yes. You state that "Duke did not originally 4 Ο. 5 propose two metering systems, and Duke's 2009 Ohio 6 matter Grid Design Basis Document described only the 7 Echelon metering system," correct? 8 Α. Yes. In fact, it specifically named the 9 entities providing the technology in that application 10 as Ambient Communications and Echelon Metering 11 Systems. 12 Absolutely. And is it your understanding Ο. 13 that at the time that Design Basis Document was 14 formed, there was an intention at that time to install Itron meters? 15 16 I do not know the exact date. We have Α. 17 Mr. Schneider's testimony in 2014 that makes it clear 18 that it was subsequent to the initial set of 19 installations of the Echelon metering system that 20 Duke discovered that it could or should install this 21 separate AMI system in Ohio. 2.2 But you're not saying, just to be clear, Q. 23 you're not saying the company intended initially to 24 install Itron meters and failed to disclose that, 25 correct?

	1520
1	A. Oh, the failure to disclose is that it
2	promised benefits from the Echelon metering system
3	that it has not and never has delivered. So the
4	basis for the application was a misdirection, error,
5	misrepresentation, deceptive, I don't know, you can
6	put whatever word you want on it, but that's the
7	point I made in my testimony.
8	Q. So you're saying the company was
9	misrepresenting and deceptive; is that your
10	testimony?
11	A. My testimony is as written. I said that
12	there are many different adjectives that could be
13	used to describe what was proposed to the Federal
14	Government and the Ohio Public Utilities Commission,
15	and at the point at which it was clear that it could
16	not and did not and never has delivered those

17 functionalities, that the failure to make that plain and bring it forward is a very serious matter. 18

19 Okay. Let's talk about the application Q. 20 to the Federal Government that you just mentioned. 21 Α. Yes.

22 Ο. You discuss that on page 9 of your 23 testimony, correct?

24 Α. Yes.

25

Q. And on page 9, you mention that the

1521
company applied for a SmartGrid Investment Grant to
the United States Department of Energy, correct?
A. Yes.
Q. And indeed, you point out that the
company described the Echelon metering system, but
you state that the company did not mention the
installation of a second Itron metering system. Do
you see that?
A. It did not; that is correct, yes.
Q. And do you believe, at the time the
application was filed, that it should have indicated
it intended to deploy Itron meters?
A. No. I'm just making clear that the
application was focused on the Echelon metering
system and there was no indication at that time that
any second metering system would be installed in
later years. So that my only point was a single
metering system was sought for federal funding and to
the Ohio Commission as well, and it's only later that
we find that a second system was subsequently
installed.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

Q. Okay. So we're clear that the company 22 initially intended to install Echelon meters, 23 24 correct? 25 A. I believe that is the case, yes.

1522 1 Q. And you are not saying the company 2 intentionally misrepresented anything initially with respect to that installation. 3 Oh, I think it misrepresented what the 4 Α. 5 system would do. I don't think it misrepresented the 6 intent to install the Echelon system on a system-wide basis. 7 8 Q. Okay. And with respect to the DOE 9 application, did you review the application itself? 10 Α. Yes. It's a very large document. 11 Ο. I think we agree that it's a very large 12 document. 13 And did you interview anyone in 14 connection -- anyone at the Department of Energy in 15 connection with that application? 16 Α. No. There was no reason to do that. Ιt 17 was very clear what the application asked for and 18 promised. 19 Okay. And did you ask for any additional 0. 20 information from DOE other than the application? 21 Α. We asked for a Freedom of Information Act 22 request for all the documents surrounding that 23 application, and the amount of material we got in 24 return is what you see here as an exhibit. 25 Q. Okay. And you don't know, do you, about

1523

1 any communication between Duke Energy and the 2 Department of Energy after that grant was awarded. 3 Α. Oh, there are documents in this file that 4 reflect that, yes. 5 Okay. So there -- so it's your Q. 6 understanding there were ongoing communications 7 between Duke Energy and the DOE as time went on and the grant was administered? 8 9 Α. That is true of all of these grants. I'm 10 familiar with how they operate because I'm familiar 11 with how it has been done in Maryland for two public 12 utilities, and in Maine for another public utility. 13 The grant is not a single check cut to the utility 14 once awarded. It was doled out to the utility in --15 based on its actual installation costs that it 16 submitted to the Department, and then funds passed 17 over to match certain aspects of those costs. 18 So the DOE monitors activities as it Ο. 19 doles out the dollars; is that correct? 20 Α. I have -- the nature of what it was doing 21 to oversee Duke, I do not know. All I know is that 22 the money was not handed out in one lump sum. 23 All right. Thank you. Q. 24 Α. Yes, right. 25 Q. Are you testifying that Duke Energy also

1524 intentionally misrepresented its plans to the USDOE? 1 2 The fact that it was unable to install a Α. 3 system that it promised it would deliver what it promised to do is something that I think Duke, as it 4 became known that it wasn't doing that, should have 5 6 notified all parties officially, yes. And never did. 7 Do you know if Duke Energy has improved 0. 8 the accuracy of its bills through the use of smart 9 meters? 10 Α. I don't know exactly of that because Duke 11 has failed to corroborate any of the operational 12 benefits that it claimed it would deliver with this 13 system. 14 And in your review of prior rider Ο. 15 proceedings, did you see any information related to 16 the accuracy of bills? 17 Α. I don't believe I recall that. 18 Okay. Do you know if the company now is Q. 19 able to engage in remote fulfillment to start and 20 stop service remotely? 21 Α. I am presuming that it can do that, yes. 22 That is a function of the meter that I believe 23 exists. 24 And do you know if Duke Energy notifies Ο. 25 customers of outages through the use of text

1525 1 messages? 2 Α. No. 3 Ο. Do you know what flexible billing options are available to customers in Duke Energy Ohio's 4 5 service territory? Other than monthly bills? 6 Α. 7 Q. Yes. 8 Α. No. 9 Ο. Do you have any knowledge of any pilot 10 programs undertaken by Duke Energy with respect to 11 time-of-use rates? 12 Α. I'm aware of those pilots that occurred, 13 yes. And I'm familiar with the fact that they have 14 concluded and that they are no longer being 15 implemented. 16 Ο. Okay. Do you know what functionality the company provides to competitive retail electric 17 18 suppliers with respect to time-of-use rates? 19 They can't provide billing quality Α. 20 interval usage data to any CRES provider to offer any 21 time-of-use rates except for very large customers who 22 are on a different metering system. 23 Do you understand -- have you ever heard Q. 24 the terminology four-by-four rate? 25 Α. No.

1	576	
	J Z 0	

	1920
1	Q. So you don't know what a four-by-four
2	rate is if I use that terminology?
3	A. Not that not that way of identifying
4	it. It may be that the design of the rate is
5	something I would be familiar with if it was
6	explained to me.
7	Q. And it's your understanding then that the
8	company offers no time-of-use rate functionality to
9	competitive suppliers; is that your testimony?
10	A. I explored all of that quite clearly in
11	the CEUD case. The Echelon metering system cannot
12	provide billing-quality interval usage data that
13	would allow any CRES provider to offer that program
14	to its customers.
15	Now, are we talking about free Saturdays
16	or something like that? I don't know what the CRES
17	providers here offer their customers, but the system
18	cannot provide the data that would allow any CRES
19	provider to offer to the 60- to 70,000 hundred
20	thousand customers in Ohio who have these Echelon
21	meters installed. They can't do it.
22	Q. Ms. Alexander, are you claiming any
23	expertise with respect to cybersecurity matters?
24	A. No, I'm not.
25	MS. WATTS: That's all I have, your

1527 1 Honor. 2 EXAMINER CATHCART: Thank you. 3 Staff? MR. EUBANKS: Staff has no questions, 4 5 your Honor. 6 EXAMINER CATHCART: Thank you. 7 Any redirect? MR. HEALEY: Could we just have 2 8 9 minutes, your Honor? 10 EXAMINER CATHCART: Sure. 11 EXAMINER WALSTRA: We'll go off the 12 record. 13 (Discussion off the record.) 14 EXAMINER CATHCART: Let's go back on the 15 record. 16 MR. HEALEY: Thank you, your Honor. OCC 17 has nothing further. 18 EXAMINER CATHCART: Thank you. 19 MR. HEALEY: And I think at this time, I 20 renew my motion for admission of OCC Exhibit 12, 21 including all exhibits. Thank you. 2.2 EXAMINER CATHCART: Any objection? 23 MS. WATTS: No objection. 24 EXAMINER CATHCART: That will be 25 admitted.

1528 1 (EXHIBIT ADMITTED INTO EVIDENCE.) 2 EXAMINER CATHCART: Duke. 3 MS. WATTS: We would move for admission of Duke Exhibit, I think it's 35, 36, and 37. Is it 4 5 two? 6 EXAMINER WALSTRA: The Staff Report was 7 already in. Oh, that's right. 35 and 36. 8 EXAMINER CATHCART: Any objection? 9 MR. HEALEY: Yes, your Honor. We would 10 object again to the admission of Duke Exhibit 36 11 which is testimony that was filed by Staff in a 2012 12 The use of this exhibit was inappropriate case. 13 because the witness did not have any foundation, had 14 not reviewed it. We don't know why this testimony 15 was submitted. We don't know if it was adopted. We 16 don't know if this case approved any of the numbers 17 in that document and, therefore, they are wholly 18 irrelevant and unreliable for purposes of evidence in 19 this case. 20 MS. WATTS: Your Honor, it's a little 21 disingenuous for Counsel to suggest that nobody knows 22 what the purpose of Staff Report in a rate case is. 23 It stands for what it stands for in that previous 24 case. The witness was only referred to one 25 particular number in a schedule in that case, and my

1529 1 purpose in questioning her was to see if she had 2 reviewed that previously. If we can't have it admitted as an exhibit, I would ask the Bench to take 3 administrative notice of the two documents. 4 5 EXAMINER WALSTRA: Are you objecting to 6 both or just to 36? 7 MR. HEALEY: Only to 36. 8 EXAMINER CATHCART: We are going to admit 9 35, and we will just take administrative notice of Exhibit 36. 10 11 MS. WATTS: Thank you, your Honor. 12 (EXHIBIT ADMITTED INTO EVIDENCE.) 13 EXAMINER CATHCART: Thank you. 14 THE WITNESS: Okay. Do I leave all these 15 documents here? 16 MR. HEALEY: You can take them. 17 EXAMINER CATHCART: Would Staff like to 18 call its next witness. 19 MR. LINDGREN: Thank you, your Honor. 20 The Staff calls James Schweitzer to the stand. 21 (Witness sworn.) 2.2 EXAMINER CATHCART: You may be seated. 23 MR. LINDGREN: May I approach the 24 witness? 25 EXAMINER CATHCART: You may.

1530 MR. LINDGREN: Please let the record 1 2 reflect that I am handing the witness what I have 3 marked for identification as Staff Exhibit 6. EXAMINER CATHCART: So marked. 4 5 (EXHIBIT MARKED FOR IDENTIFICATION.) 6 7 JAMES W. SCHWEITZER 8 being first duly sworn, as prescribed by law, was examined and testified as follows: 9 10 DIRECT EXAMINATION 11 By Mr. Lindgren: 12 Q. Hello, Mr. Schweitzer. 13 Α. Good morning. Do you have before you the document that 14 Ο. I have marked as Staff Exhibit 6? 15 16 Α. Yes. 17 Is that your prefiled testimony? Q. 18 Α. It is. 19 And was this testimony prepared by you or Ο. 20 at your direction? 21 Α. Yes. 22 And do you have any changes or Ο. corrections to this testimony? 23 24 Α. No. 25 Q. If I were to ask you all the questions

1531 contained in this exhibit, would your answers be the 1 2 same? 3 Α. Yes. 4 MR. LINDGREN: Thank you. I have no 5 further questions and, subject to cross-examination, I move for the admission of Staff Exhibit 6. 6 7 EXAMINER CATHCART: Thank you. 8 MR. OLIKER: Thank you, your Honor. 9 10 CROSS-EXAMINATION 11 By Mr. Oliker: 12 Good morning, Mr. Schweitzer. Q. 13 Α. Good morning, Mr. Oliker. 14 Hopefully this cross-examination will be Ο. 15 very short, but we'll find out in a moment. Am I 16 correct you were responding to objections to the 17 Staff Report submitted by the Ohio Consumers' Counsel? 18 19 Certain objections, yes. Α. 20 Q. And do those objections relate to the 21 portions of the Staff Report that you may have been involved in preparing? 22 23 I am just writing testimony objecting --Α. 24 well, responding to some of the objections of the 25 OCC. That's it.

1532 Are there any other sections of the Staff 1 Q. 2 Report that you may have contributed to that are not 3 contemplated by your testimony? Α. 4 No. 5 MR. OLIKER: Thank you, Mr. Schweitzer. And thank you, your Honor. 6 7 EXAMINER CATHCART: Thank you. 8 9 CROSS-EXAMINATION 10 By Mr. Healey: 11 Mr. Schweitzer, on page 2 of your Q. 12 testimony. 13 Α. Yes. 14 Starting at line 5, you describe the Ο. 15 purpose of your testimony as addressing objections 16 regarding SmartGrid issues by the Ohio Consumers' 17 Counsel to the PUCO Staff Report. Do you see that? 18 Α. Yes. 19 And the Staff Report was filed only in Ο. 20 the rate case, correct? 21 Α. That's correct. 22 And so, would it be accurate to say that Q. 23 your testimony applies only to the rate case and not 24 on the other cases before the Commission currently? 25 Α. That is correct.

1533 1 Ο. And so, you are not testifying as to 2 whether the stipulation in this case meets the Commission's three-prong test; is that right? 3 Absolutely not. 4 Α. 5 Ο. Are you familiar with the used and useful standard in Ohio? 6 7 Α. Yes. And one of Staff's responsibilities in 8 Ο. 9 preparing its -- I apologize. 10 One of Staff's responsibilities in 11 preparing the Staff Report is to determine whether 12 Duke's assets are used and useful, correct? 13 Α. Yes. 14 Ο. And when Staff is evaluating whether 15 property is used and useful, does it do a physical 16 inspection of that property? 17 Α. Yes. 18 Can you describe for me how those Q. 19 physical inspections work? 20 We have -- we have folks that are Staff Α. 21 members that actually do physical inspections. They 22 often will hookup with certain employees, service 23 employees employed by Duke, and go around the service 24 territory, identifying property plant equipment 25 exists and that it is operating appropriately.

1534 1 0. So you would agree that these physical 2 inspections are an important part of determining whether property is, in fact, used and useful, 3 correct? 4 5 MR. LINDGREN: Objection, that's outside 6 the scope of his testimony. Direct testimony. 7 MR. HEALEY: Your Honor, his testimony 8 discusses whether or not property is used and useful. 9 Those words are right in his testimony. I am just 10 trying to understand what Staff's process is for 11 making that determination. OCC objected that certain 12 property may or may not have been used and useful, 13 and he is responding that it, in fact, has already 14 been determined to be so. 15 EXAMINER CATHCART: Overruled. The 16 witness can answer to his understanding. 17 THE WITNESS: Please repeat the question. 18 MR. HEALEY: Can I have that reread, 19 please. 20 (Record read.) 21 Α. It is, yes, it is a factor. 22 I don't mean to quibble, but my question Ο. 23 asked whether you would agree that it is an important 24 part of the process in determining whether property 25 is used and useful, not simply whether it was a

1535 1 factor. 2 I'm going to say that it's a factor. Α. 3 Q. So are you saying it is unimportant? I am not saying that. It is -- it can be 4 Α. 5 important. And -- it can be important. 6 Other than these physical inspections, Ο. 7 what else does Staff do to determine that property is or is not used and useful? 8 9 MR. LINDGREN: Objection. Again, this is 10 outside the scope of his testimony. He was not the 11 person on Staff responsible for that. 12 MR. HEALEY: Your Honor, this is the 13 Staff witness, who is testifying on page 4, that 14 these expenses have already been approved as prudent 15 and used and useful. I think I am entitled to explore how Staff may or may not have made that 16 17 determination, and this is the witness that Staff has 18 put on on that issue. 19 MR. LINDGREN: Your Honor, those audits 20 were done in prior cases, not in this proceeding. 21 EXAMINER CATHCART: Overruled. The 22 witness can answer. 23 I believe it would be more appropriate to Α. 24 direct more specific line of questioning to another 25 Staff witness.

1536 1 Ο. And so, is your response that you don't know the answer at all or that you just prefer not to 2 3 answer? 4 MR. LINDGREN: Objection. 5 MR. HEALEY: Your Honor, I asked the 6 question. He said it would be more appropriate of 7 another witness. I think I am entitled to understand 8 if he knows the answer or not rather than simply 9 deferring. If he doesn't know the answer, then he 10 can just say so and that's fine and I will move on. 11 EXAMINER CATHCART: Overruled. 12 Okay. I don't know the answer. Α. 13 Ο. You are aware that OCC objected to the 14 Staff Report on the grounds that it failed to address 15 whether Duke's current SmartGrid infrastructure 16 delivers all of the capabilities and functionalities 17 that Duke promised in past cases, correct? 18 Α. Yes. 19 You would agree that Duke's SmartGrid 0. should, in fact, deliver any capabilities and 20 21 functionalities that were promised, correct? 2.2 Α. I'll agree that was the goal. The functionalities of the SmartGrid are -- have been 23 24 in -- they are a reality according to many of the 25 factors that we do happen to look at.

```
1537
                 Let's turn to page 2, you may already be
1
            Ο.
2
     there, of your testimony. And starting around
     line 15 or so, you begin to discuss a stipulation
 3
     that was filed in Case No. 10-2326, correct?
 4
 5
            Α.
                 Yes.
 6
                 And you note that under that agreement
            Ο.
7
     Duke would file a rate case in the year after full
8
     deployment, and then you're quoting from the
9
     stipulation which says "such that the revenue
10
     requirement requested in that case will reflect the
     level of the benefits attributable to SmartGrid which
11
12
     have actually been achieved by the company in all
13
     prudently incurred current costs associated with the
14
    program." Do you see that?
15
            Α.
                 Yes.
16
            Ο.
                 You would agree that the rate case
17
     referenced here in this 10-2326 stipulation is the
18
     current rate case, 17-32, correct?
19
            Α.
                 That is correct.
20
            Ο.
                 And I would direct your attention to the
21
     phrase "level of the benefits attributable to
2.2
     SmartGrid." Do you see that?
23
            Α.
                 Yes.
24
                 It's on line -- thank you. The phrase --
            Ο.
25
     well, let me take a step back.
```

	1538
1	The reference here is to the revenue
2	requirement. A revenue requirement is a dollar
3	number, correct?
4	A. Yes, it is.
5	Q. And so, when we use the phrase "level of
6	the benefits attributable to SmartGrid," the word
7	"level" would also refer to a dollar number, correct?
8	A. Yes, it does.
9	Q. And you don't know the dollar value of
10	the benefits attributable to SmartGrid which has
11	actually been achieved by the company in the test
12	year, correct?
13	A. No.
14	Q. Let's turn to page 3 of your testimony,
15	please.
16	A. Okay.
17	Q. And starting at line 6, we discuss OCC's
18	Objection 12 where OCC objected to the fact that the
19	Staff Report did not address whether Duke's current
20	SmartGrid infrastructure is capable of providing
21	customers with safe, reliable, and reasonably-priced
22	electric service. You are aware of that objection,
23	correct?
24	A. Yes.
25	Q. And your response is simply "This is

Γ

	1539
1	outside the scope of the proceeding"?
2	A. That's the response, yes.
3	Q. When you say "this proceeding" here, are
4	you referring only to the rate case?
5	A. Only to the rate case.
6	Q. So you would agree that in, for example,
7	the ESP case, whether Duke is providing safe,
8	reliable, and reasonably priced electric service
9	would, in fact, be relevant, correct?
10	MR. LINDGREN: Objection, calls for a
11	legal conclusion.
12	EXAMINER CATHCART: Sustained.
13	MR. HEALEY: Your Honor, if I may
14	respond, ask for reconsideration, his conclusion in
15	line 8 is that Objection 12 is outside the scope of
16	this proceeding. If he's entitled to make a
17	conclusion about the scope of the proceeding based on
18	4928, then he should also have to be able to respond
19	whether it is or is not within the scope of a
20	different proceeding. If Staff would like to
21	withdraw Question 6, I would be happy to entertain
22	that.
23	MR. LINDGREN: No, we would not like to.
24	MR. HEALEY: Your Honor, if I may finish,
25	if he's entitled to testify as to the scope of this

1540 proceeding in response to an OCC objection, he 1 2 shouldn't then be entitled to defer on the same question for another proceeding in which he is 3 testifying. 4 5 MR. LINDGREN: No. Mr. Schweitzer is 6 only addressing objections filed in the rate case. 7 He should not be subject to questioning about whether -- about another case. 8 9 EXAMINER CATHCART: I am going to sustain 10 the objection. 11 MR. HEALEY: Thank you, your Honor. I'll 12 move on. 13 Ο. (By Mr. Healey) Mr. Schweitzer, is it 14 your testimony in a rate case the Commission can 15 approve unreasonably-priced electric service? As a citizen, I would hope not, but a 16 Α. 17 Commission can approve rates that are based on the 18 facts presented in the case but I would --19 unreasonableness is an abstract measurement that 20 would be somebody's opinion, so I don't have an 21 opinion on that one way or the other. 2.2 Ο. Sure. 23 Are you familiar with the phrase "just 24 and reasonable" as in the regulatory context? 25 Α. Yes.

1541 1 Ο. And you would agree that rates approved 2 by the Commission must be just and reasonable, 3 correct? 4 Α. I do agree with that, yeah. 5 Q. So therefore, in a rate case, if the 6 Commission were to approve rates that were deemed 7 unreasonable, that would be wrong, correct? 8 MR. LINDGREN: Objection. Mr. Schweitzer 9 is not testifying here on rates. He is only 10 addressing specific objections. 11 MR. HEALEY: Your Honor, he is testifying 12 that whether a rate -- whether assets are capable of 13 providing safe, reliable, and reasonably-priced 14 electric service is outside the scope of this 15 proceeding, so I am asking him if -- to clarify his 16 reasoning on why he thinks that's outside the scope 17 of the proceeding. 18 EXAMINER CATHCART: Overruled. T**'**]] 19 allow the question. 20 MR. HEALEY: Can I have that question 21 reread, please. 2.2 MS. WATTS: Your Honor, I would like to 23 object as well because I believe the question was 24 what Mr. Schweitzer thought about what the Commission 25 would do, and Mr. Schweitzer can't testify as to what

1542 1 goes on in the Commission. 2 (Record read.) 3 MR. HEALEY: I would respond to Ms. Watts 4 and say if he is incapable of testifying as to what 5 the Commission can or cannot do in this proceeding, 6 then he can't possibly state that Objection 12 is 7 outside the scope. That's exactly what he is 8 testifying to in Question and Answer 6, that he 9 believes the Commission does not have the authority 10 to address this objection in this case. 11 MR. LINDGREN: Objection. That 12 mischaracterizes his testimony there. 13 MR. HEALEY: I'll move on, your Honor. 14 EXAMINER CATHCART: Thank you. 15 (By Mr. Healey) Let's move on to your Q Q. 16 and A No. 7 which starts on page 3 at line 10. Here 17 you discuss OCC Objections 13 and 15 and your 18 ultimate conclusion is that the SmartGrid 19 expenditures have already been deemed to be prudent 20 and the underlying assets used and useful in the 21 DR-IM Rider proceedings; is that fair? 2.2 Α. That is fair, yes. 23 And the most recent -- or I guess -- let Q. 24 me start again. 25 One of those proceedings would be Case

1543 No. 17-1403, correct? 1 2 Α. Yes. 3 MR. HEALEY: Your Honor, if I may 4 approach? 5 EXAMINER CATHCART: You may. MR. HEALEY: Your Honor, if I may mark as 6 7 OCC Exhibit 13, the document I just handed the witness is the "Staff Review and Recommendation" from 8 9 Case No. 17-1403, dated September 26, 2017. 10 EXAMINER CATHCART: So marked. 11 (EXHIBIT MARKED FOR IDENTIFICATION.) 12 Mr. Schweitzer, as we just discussed, one Ο. 13 of the rider proceedings you refer to in your 14 testimony is Case No. 17-1403, correct? 15 MR. LINDGREN: Objection. Counsel hasn't 16 established yet that the witness was involved with or 17 familiar with this particular case. I don't believe 18 he's testified about this particular one. 19 MR. HEALEY: Your Honor, his testimony 20 says that the rider proceedings approved whether the 21 costs were prudent and used and useful. If his 22 counsel wants to tell me he doesn't know anything 23 about these proceedings, then how could he possibly 24 testify what was or was not approved in them? 25 MS. WATTS: And, your Honor, just for the

Duke Energy Volume IX

1 record -- I take that back. 2 MR. LINDGREN: If I may, your Honor, the 3 witness testified in general that the riders had been reviewed in prior proceedings, but he did not address 4 5 any particular proceeding including this one. MR. HEALEY: Your Honor, his testimony 6 7 says the Commission has approved Rider DR-IM annually 8 since 2010; OCC has been a party each year; each year 9 the audit of these expenses included this and that; 10 during the audit, this was done. I mean, to sit here 11 and say he can testify to all that, but then can't 12 testify to the individual cases because he didn't 13 specifically identify the numbers, I mean, is that 14 really what we're objecting to now? 15 EXAMINER CATHCART: Overruled. The 16 witness can answer to his understanding. 17 Is there a question for me to answer? Α. 18 Q. I'm not sure. 19 (Record read.) 20 Α. I did not specifically refer to this 21 individual case, but in general I referred to all 2.2 SmartGrid rider cases. 23 And your understanding is that in all of 0. 24 the SmartGrid rider cases, the Staff reviewed whether 25 the charges to customers were prudently incurred?

Armstrong & Okey, Inc., Columbus, Ohio (614) 224-9481

1544

	1545
1	A. That is correct.
2	Q. And it's your understanding that in each
3	of these rider cases, the Staff reviewed whether the
4	underlying SmartGrid assets were used and useful?
5	A. Yes.
6	Q. Okay. Now, I would like to direct you to
7	the document that has now been marked OCC Exhibit 13
8	which is the Staff's Report from 17-1403 which is one
9	of the recent cases that you are referring to. Do
10	you have that in front of you?
11	A. Yes.
12	Q. And could you show me where in this
13	document the Staff says anything about prudence or
14	used and usefulness?
15	A. It may not specifically say it, but there
16	is implications of used and usefulness throughout the
17	audit. The words themselves don't appear here, but
18	used and usefulness during the course of a Staff
19	audit is determined even if the words do not appear
20	on the Staff Report.
21	MR. HEALEY: Your Honor, may I approach?
22	EXAMINER CATHCART: You may.
23	MR. HEALEY: Your Honor, if I may mark as
24	OCC Exhibit 14 what's just been handed to the witness
25	which is the Staff's Report from the DR-IM Rider

1546 case, 16-1404. 1 2 EXAMINER CATHCART: So marked. 3 (EXHIBIT MARKED FOR IDENTIFICATION.) Mr. Schweitzer, is this the similar 4 Ο. 5 report that was filed in the previous year's case 6 regarding Rider DR-IM? 7 Α. It is, yes. 8 Ο. And can we agree that this report also does not use the words "prudence," "prudent," or 9 "used and useful"? 10 11 That is correct, but, once again, I will Α. 12 say that those words, even though they may not be 13 typed on this, it is part of a Staff audit. 14 And would you agree that another one of Ο. 15 these --16 MR. HEALEY: I promise I only have one 17 more, your Honor. 18 Would you agree that the previous case Ο. 19 regarding DR-IM was Case No. 15-833? 20 Α. That number sounds familiar. 21 Ο. I can -- if you would like, I can hand 22 you the docket card. 23 Subject to check. Α. 24 Or otherwise trust me. Appreciate that. Ο. 25 MR. HEALEY: Your Honor, I would like --

1547 actually, I would like to mark the docket card 1 2 actually. May I approach? 3 EXAMINER CATHCART: You may. MR. HEALEY: Your Honor, if I may mark as 4 5 OCC Exhibit 15, this is the docket card from Case 15-833-GE-RDR before the PUCO. 6 7 EXAMINER CATHCART: So marked. (EXHIBIT MARKED FOR IDENTIFICATION.) 8 9 Ο. And, Mr. Schweitzer, I believe you just 10 confirmed this is also a Rider DR-IM case and annual rider update, correct? 11 12 Α. Yes. 13 Ο. And if you look about halfway down this 14 page, you will see on January 6, 2016, a Stipulation 15 and Recommendation was filed in that case, correct? 16 Α. Yes, that's what it says. 17 Ο. And then a couple months later, on 18 March 31, 2016, there is an Order approving that 19 stipulation. Do you see that? 20 Α. Yes. 21 MR. HEALEY: Your Honor, if I may 22 approach again? 23 EXAMINER CATHCART: You may. 24 MR. HEALEY: Your Honor, I would like to 25 mark as OCC Exhibit 16, the document that's just been

1548 handed to the witness which is the Stipulation and 1 2 Recommendation filed in Case 15-883. 3 EXAMINER CATHCART: So marked. 4 (EXHIBIT MARKED FOR IDENTIFICATION.) 5 Ο. (By Mr. Healey) Mr. Schweitzer, do you 6 see the stipulation I just handed to you and 7 recognize that it is -- appears to be the stipulation that we just discussed on the docket card filed on 8 9 January 6? 10 Α. Yes. 11 Let's turn quickly to page 8 of this Ο. 12 stipulation. And I just do note this stipulation was 13 filed by Duke, correct? On page 8. 14 Α. Yes, that's correct. 15 Q. And then on page 9, it was also signed by 16 the staff of the Consumers' Counsel, and Ohio 17 Partners for Affordable Energy, correct? 18 Α. Correct. 19 Let's turn to page 5, please. And I Ο. 20 would direct you to footnote 3. And it says "The 21 Signatory Parties are not agreeing that Duke's 22 SmartGrid, or any component thereof, is 'used and 23 useful, ' or that any related expenses are appropriate 24 for ratemaking, for purposes of the rate case that 25 Duke must file by October 22, 2016, per the

1549 1 stipulation and Commission Order in Case No. 2 10-2326-GE-RDR." Do you see that? 3 Α. Yes. And you would agree the rate case 4 0. identified in this footnote is the current rate case, 5 6 17 - 32?7 Α. Okay. Yes. 8 Q. And so you agree, therefore, that Staff 9 agreed, as part of this settlement which, as we 10 discussed previously, was approved by the Commission, did not address whether the assets were used and 11 12 useful, correct? 13 MR. LINDGREN: Objection. The document 14 will speak for itself. 15 EXAMINER CATHCART: Sustained. The 16 document reads what it says. 17 Q. Having seen this document, 18 Mr. Schweitzer, do you still testify that the 19 Commission found that the assets were used and useful 20 as part of this case? 21 MS. WATTS: And, your Honor, I object as 22 it calls for a legal conclusion. Mr. Schweitzer is 23 not a lawyer. And, further, the language contained 24 on page 5 doesn't necessarily preclude Staff from 25 having an opinion about used and useful.

	1550
1	MR. HEALEY: Your Honor, page 4, line 6,
2	of Mr. Schweitzer's testimony says "these expenses
3	have already been approved as prudent and used and
4	useful." My question was does he still believe that
5	to be true notwithstanding the document in front of
6	him. He is certainly able to answer whether he
7	stands by his own testimony.
8	EXAMINER CATHCART: Overruled. I'll
9	allow the question.
10	A. For purposes of settlement, there may be
11	a presumption here that certain parties didn't want
12	to agree to. But when it comes to Commission rulings
13	on the pre presented with facts in the case, the
14	Commission is going to approve or disapprove, in its
15	Commission Orders, based on the facts that it's
16	given. And part of part of the Commission's
17	well, I am not going I won't even say that. But
18	generally speaking, yes, the Commission is still
19	going to make its Orders based on the prudency of the
20	costs that it's approving.
21	MR. HEALEY: That's all I have, your
22	Honor.
23	EXAMINER CATHCART: Thank you.
24	Duke, any questions?
25	MS. WATTS: No, your Honor.

	1551
1	EXAMINER CATHCART: Thank you.
2	Any redirect?
3	MR. LINDGREN: May we have 2 minutes to
4	confer, your Honor?
5	EXAMINER CATHCART: You may.
6	EXAMINER WALSTRA: Go off the record.
7	(Discussion off the record.)
8	EXAMINER CATHCART: Let's go back on the
9	record.
10	Any redirect?
11	MR. LINDGREN: Staff has no redirect,
12	your Honor.
13	EXAMINER CATHCART: Thank you. Thank
14	you.
15	MR. LINDGREN: And, your Honors, I would
16	renew my motion for the admission of Staff Exhibit 6.
17	EXAMINER CATHCART: Any objection?
18	Hearing none, it will be admitted.
19	(EXHIBIT ADMITTED INTO EVIDENCE.)
20	EXAMINER CATHCART: OCC?
21	MR. HEALEY: Yes, your Honor. OCC would
22	move for the admission of OCC Exhibits 13, 14, 15,
23	and 16.
24	EXAMINER CATHCART: Any objections?
25	MS. WATTS: No objection, your Honor.

	1552
1	EXAMINER CATHCART: They will be
2	admitted.
3	(EXHIBITS ADMITTED INTO EVIDENCE.)
4	MR. HEALEY: Your Honor, at this time,
5	since we had now started talking about OCC's
6	objections to the Staff Report, can we mark them as
7	OCC Exhibit 17 and seek their admission as well,
8	consistent with the earlier ruling admitting IGS's
9	and RESA's objections? And I have copies of those.
10	EXAMINER CATHCART: Thank you.
11	MR. HEALEY: Would that be all right?
12	EXAMINER CATHCART: Yes, yes. That will
13	be so marked.
14	(EXHIBIT MARKED FOR IDENTIFICATION.)
15	EXAMINER CATHCART: Any objections?
16	MS. WATTS: Subject to the ongoing debate
17	about what the company's permitted to put in the
18	record and what the other parties are permitted to
19	put in the record, subject to that objection, we
20	don't have anything additional.
21	EXAMINER CATHCART: Thank you.
22	It will be admitted.
23	(EXHIBIT ADMITTED INTO EVIDENCE.)
24	EXAMINER WALSTRA: Anything else before
25	we go off the record?

	1553
1	MR. OLIKER: I don't know if it has to be
2	on the record. I want to talk about scheduling
3	tomorrow.
4	EXAMINER WALSTRA: Let's go off the
5	record.
6	(Discussion off the record.)
7	(Thereupon, at 12:29 p.m., the hearing
8	was adjourned.)
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

	1554
1	CERTIFICATE
2	We do hereby certify that the foregoing is a
3	true and correct transcript of the proceedings taken
4	by us in this matter on Thursday, July 19, 2018, and
5	carefully compared with our original stenographic
6	notes.
7	
8	
9	Karen Sue Gibson, Registered Merit Reporter.
10	
11	
12	Carolyn M. Burke, Registered Professional Reporter.
13	
14	(KSG-6584)
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

8/3/2018 3:55:06 PM

in

Case No(s). 17-0032-EL-AIR, 17-0033-EL-ATA, 17-0034-EL-AAM, 17-0872-EL-RDR, 17-0873-EL-ATA, 7

Summary: Transcript in the matter of the Duke Energy Ohio, Inc. hearing held on 07/19/18 - Volume IX electronically filed by Mr. Ken Spencer on behalf of Armstrong & Okey, Inc. and Gibson, Karen Sue Mrs.